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AUGUST 1989

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Dear CCI Reader,

One of the major U.K. leisure software companies told us recently that they would not be investing too many resources into the 16 Bit market yet as their biggest earner was still the 64. In the U.S.A., software companies are feeling the Nintendo pinch — the games console that is claimed now to be in one in five U.S. homes. Elsewhere, except perhaps in Japan, the real computer — in general the 64 — is still king.

Games consoles have always done well in the U.S.A. Epyx are about to market one weighing only one pound (though I wouldn't rush to buy it, if I were you, as the big attraction is that it comes bundled with that terrifically up-to-date game California Games, which only came out two years ago on the 64!).

One of the reasons why consoles are bought in the U.S. is that prosperous Americans have more disposable income and can often afford to buy both a games console and a proper computer. While the 64 is still selling well around the world, increasingly in the U.S.A. the home computer is the IBM compatible, the PC. Starting as a purely business computer, the PC is now reaching thousands even millions of homes who want to use a computer for more than just games.

As a universal standard, MSDOS is not the latest word in technology and leaves a great deal to be desired (the Amiga would be a much better choice technically). However, with so much software already produced for the IBM original and working perfectly well on the myriad clones, including CBM's sharply-priced range, the PC may well eventually challenge the 64 as the biggest selling computer ever.

With Commodore's growing effort to gain a greater market for its PCs, we felt that it would be right to increase our previously only occasional coverage of matters PC and this month we have included a PC Special in which we cover some of the more interesting and affordable MSDOS developments.

The leisure software companies have not been unaware of the PC trend worldwide (they do not agree with one of our readers this month who calls the PC users "monochromatic spreadsheet junkies". Great expression that!). For we are now seeing almost every major game released being given one or more PC versions. Next month we hope to provide special in-depth coverage of the PC games scene.

Meanwhile there are developments still on the 64 front. CBM UK plans to sell 100,000 plus new owners their faithful seven year old during the coming year. There are also strong rumours of a new 64 arriving. Well, not exactly a 64 but a computer that will run most 64 software with an integral disk drive, probably the 3½" like the Amiga.

Commodore, as most computer companies, must keep their R and D team moving along with ideas, many of which will never see the light of commercial day. Nevertheless this strong rumour has been confirmed to us in countries as far apart as Australia and the U.K. So it just could be a possibility and would probably have the welcome result of increasing the memory to 256K and of getting rid of the troublesome 5¼" drive, which not quite coincidentally is also happening in the PC field.

These days when the Commodore name is only challenged worldwide by IBM for international recognition, a "near 64" with the amount of software and knowhow already existing could just sweep the market and keep the world's favourite compouter plugging away into the 21st Century. So if you, like many Americans, go out and buy a PC — or, like many Europeans, get yourself an Amiga, don't throw away your old 64, keep it to give your kids … or even their kids. Like skateboards, the good old 64 can keep on coming back for ever and ever …

Antony H. Jacobson
Managing Editor and Publisher

COMMODORE COMPUTING INTERNATIONAL

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Editorial ext: 274
Subscription ext: 274
Advertising ext: 280/286

Published by Croftward Limited
Finsbury Business Centre
40 Bowling Green Lane
London EC1R 0NE

Distributed by Comag,
Tavistock Road, West Drayton,
Middx UB7 7QE

Typesetting by Able Baker

Printed by Chase Printers Group

Commodore Computing International — an independent magazine for Commodore computer users — is not connected in any way with Commodore Business Machines UK Ltd. It is published 12 times per year by Croftward Limited. The publishers do not accept liability for any incorect statements or errors contained in material from independent sources or authors which may be reproduced from time to time.

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Infinity

Infinity features a new game to be released shortly by White Panther Publishing. The company claim it will have over 1000 different screens, 32 different aliens, more than 100 puzzles, and over 80 different objects.

The storyline goes like this: crash landing on the fourth planet of the Inferium System was certainly a better proposition than drifting around in deep space. It looked to be an O.K. place, even though the old star charts called it Infinity. The Mutineers, who set you adrift in a small personal transporter, had been surprisingly generous with supplies. They didn't want to see you dead; just out of their way!

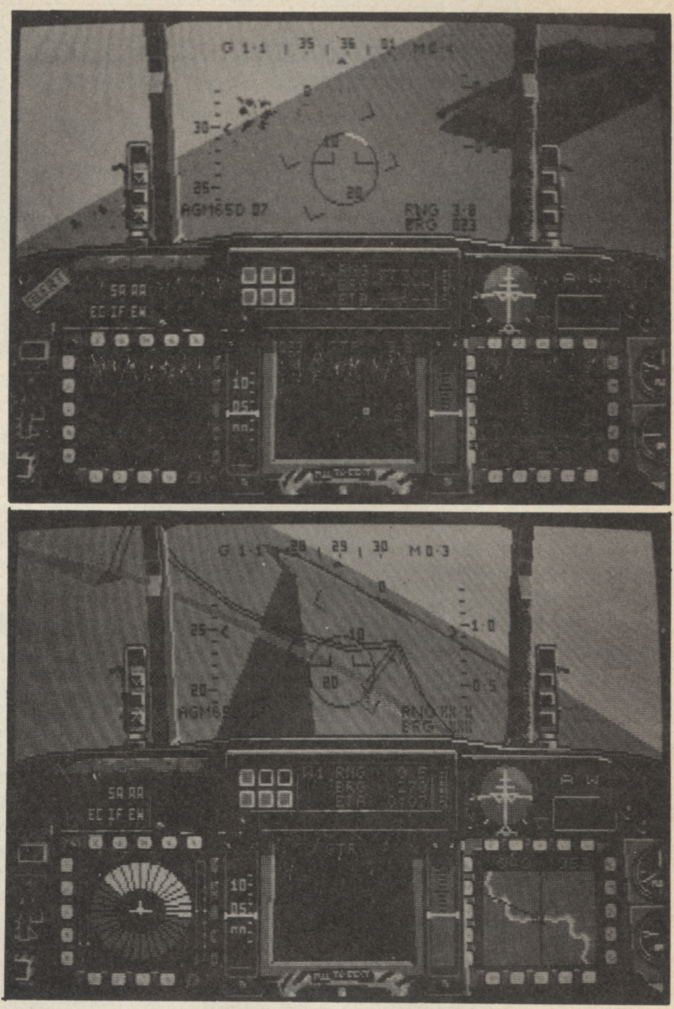
They couldn't be expected to know that the inhabitants of the fourth planet are a hungry, thieving bunch of maniacs who will steel the suit off your back given the slightest opportunity. If they can't be bought off with what you are carrying they may even take you apart. It is possible to bargain with them for transport and assistance, but they're not very reliable and so you had better beware.

It's a great moment when you discover and decipher an old manuscript that tells of a disused radio telescope that is on the most easterly of the chain of islands on which you landed. Your next problem, apart from avoiding being eaten by the natives, is to find and repair the telescope so that you can get a message to Earth. Well it beats putting a message in a bottle!

F16 Combat Pilot Takes Off!

The first ever major flight simulation of an American fighter plane by a British company looks set to become the most successful 16 bit flight simulator worldwide especially in the USA, Digital Integration has informed us.

The game, F16 Combat Pilot is to be marketed by Electronic Arts in the USA where it will be pitched as the company's premier flight simulator for this year. Digital Integration have already enjoyed success throughout Europe; in the UK the game went straight to No. 1 in many charts. The Amiga version will be available soon.



Computer Security Neglect

Twenty per cent of the UK's top companies fail to provide adequate protection for their computer systems, according to a recent report by Hayes Business Services, the Hayes plc company. The report deals with companies with an annual turnover in excess of £500 million.

The report is based on recent research for Hayes by BIS Mackintosh. The research also indicates that the overall market for off-site storage of computer tapes is growing between five and ten per cent a year and is potentially worth some £30 million.

According to Hays, the major users of off-site storage are banks, stockbrokers and financial institutions, with advertising agencies, lawyers and television and film companies also requiring external back up.

Hays Business Services also offers a confidential storage service for files and documents, called FAST (Fast Access Storage), which is supported by relational database computer systems. Hays' Exploration Services Division stores exploration and production data for the oil industry.

BEAST

BEAST is the latest release from Psygnosis. It is a one player arcade/adventure game featuring ultra smooth parallax scrolling in all directions, the company tell us.

The game starts in the forest with the player controlling the BEAST, as he fights his way through the caste. Lurking in the forest are a whole host of hideous traps and creatures ranging from hidden man-traps to grotesque, half-screen sized demons. And the most innocent of background scenery isn't to be trusted either. The BEAST's punch may be enough to take out the first few adversaries but you'll soon find yourself outnumbered and overpowered so you'll have to find a better weapon quickly.

If you come across an entrance (to a building, cave, etc) it is possible to go inside by pushing the joystick up whilst in front of it. Some may require keys to gain entry however. If you are able to get inside then you are shown a picture, adventure style, of what you can see, together with a scrolling description.

You only have one life, but The BEAST can take quite a bit of punishment — keep an eye on the heart rate monitor, and look out for health restoration potions. Beast was written specifically for the Amiga. Price: TBA.

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The Multiplication of Microprose

Nancy Picard reports on the launch of two exciting 'niche' fillers from the masters of military simulation

If two heads are better than one, than Microprose is taking no chances. Best known for their fantastic military simulations, the company is diversifying into two new labels to accomodate different market niches. Started almost ten years ago by President 'Wild Bill' Stealey and assisted by a top-notch programming team, the Microprose standard for excellence will now also be seen as two new labels: MicroStyle and MicroStatus.

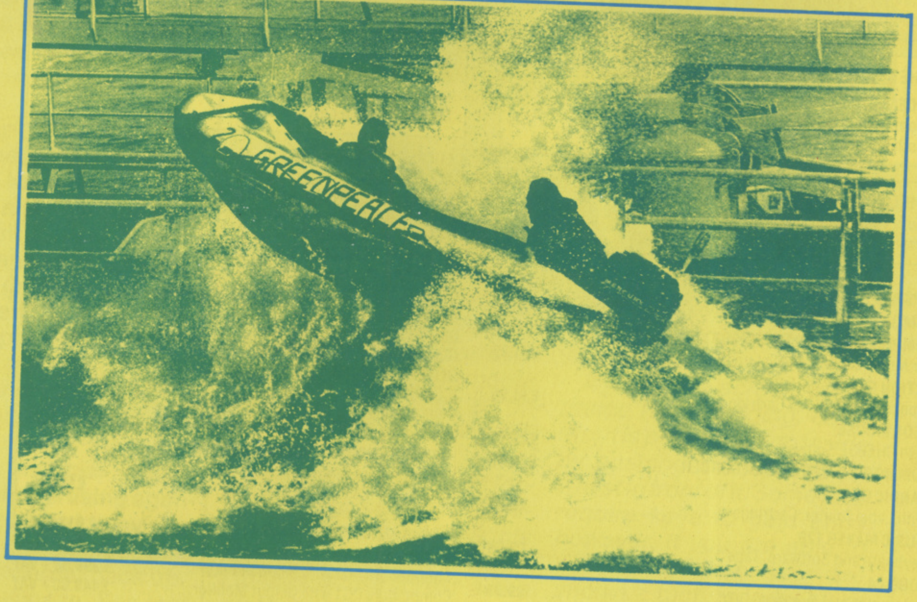
MicroStyle

MicroStyle has set its mark for adventure-seeking 'late teens' with a passion for joysticks manouevers. Written specifically for 16-bit machines, MicroStyle games expected before the end of the summer include: Honda R.V.F., a motorbike racing simulation (Amiga £24.95); Xenophobe, a horizontally-split screen alien shoot'-em-up (Amiga £19.95, C64 cass. £9.95, disk. £14.95); and Rainbow Warrior, the Greenpeace computer game (Amiga £24.95, C64 cass. £9.95, disk £14.95).

Of the three, Rainbow Warrior proves the most intriguing. The game was simultaneously released with the new Greenpeace album, Breakthorugh, and includes a manual comprehensively detailing the destruction of the environment and Greenpeaces's aims. Microprose describes the game as 'peaceful, direct action' against acid rain, the destruction of the ozone layer by CFC's, nuclear power generators, toxic waste dumping and the slaughter of seal pups.

MicroStatus

With the tag line, 'Computer games have just grown up,' Microprose has sought to yuppify their image with this new label. Their late summer mix includes: Tower of Babel, a 3D puzzle game using three robot spiders (Amiga — price TBA); Dark Side, a solid 3D arcade adventure (first seen on the C64) in which you must seek out and destroy a massive laser (Amiga £24.95); and Total Eclipse, (also seen on the C64) another puzzle-solving search through a pyramid's labyrinthine rooms to destroy a curse-producing shrine (Amiga £24.95).



Midwinter and Survivor are two titles planned for release in Autumn 1989.

With this recent diversification, Microprose is adding to its already well-earned reputation as a shrewd marketing company. At the launch of the new titles earlier this summer at the London's fashionable night club, the Hippodrome, it wasn't the champagne that made the crowds 'ooh' and 'aah' but the screen on which sample graphics were displayed. The games look very, very good. Listen for more exciting news to come from Microprose, from any of its three voices.

N.P.

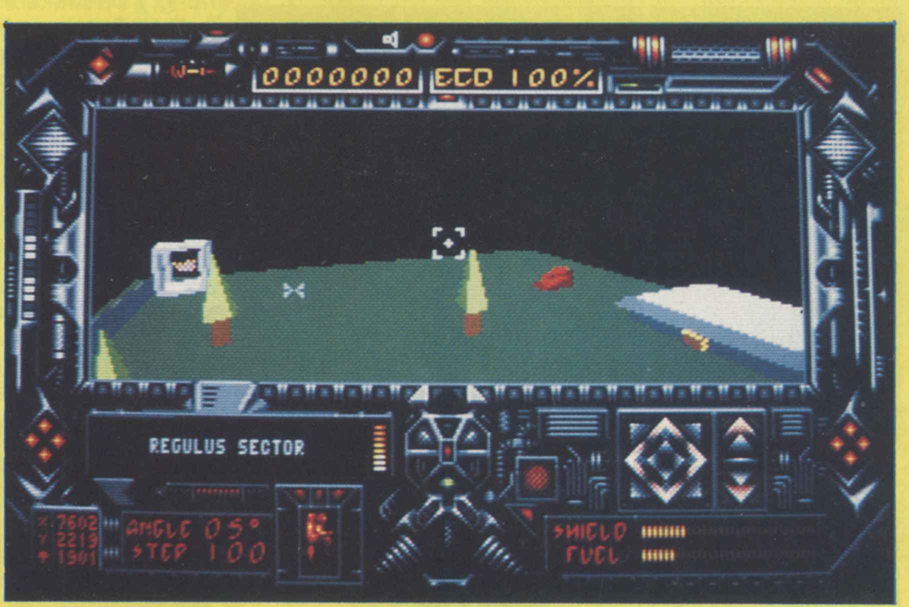
Dark Side

First from Microprose' new label Micro Style is this signing from Incentive. Running some way behind the 8-bit shedules, Dark Side is the second in the Freescape series. Tony Horgan checks it out.

For two centuries, the Ketars have been plotting the destruction of the inhabitants of their neighbouring planet Evath. Now their plans have taken shape, the shape of an enormous laser cannon aimed directly at Evath. Zephyr One, as it is known, takes its power from a network of energy collection crystals. Your only hope of averting disaster (as a native of Evath) is to break down the network, starving the weapon.

The Ketars' planet is reminisent of the classic crumbly Mercenary, but Incentive's Freescape system means everything is solid as opposed to transparent vectors. The added speed gives the Amiga version a big playability boost over the 64 game. The planet is a lot more accessible, and examining details is a much quicker process. As a whole, the game is not as innovative as Incentive would like to think, but has more than enough content for inquisitive explorers. A highly detailed animated control panel and oringinal sound effects round off a satisfying seek, shoot and solve 'em up.

Price: £24.95



Microprose Soccer

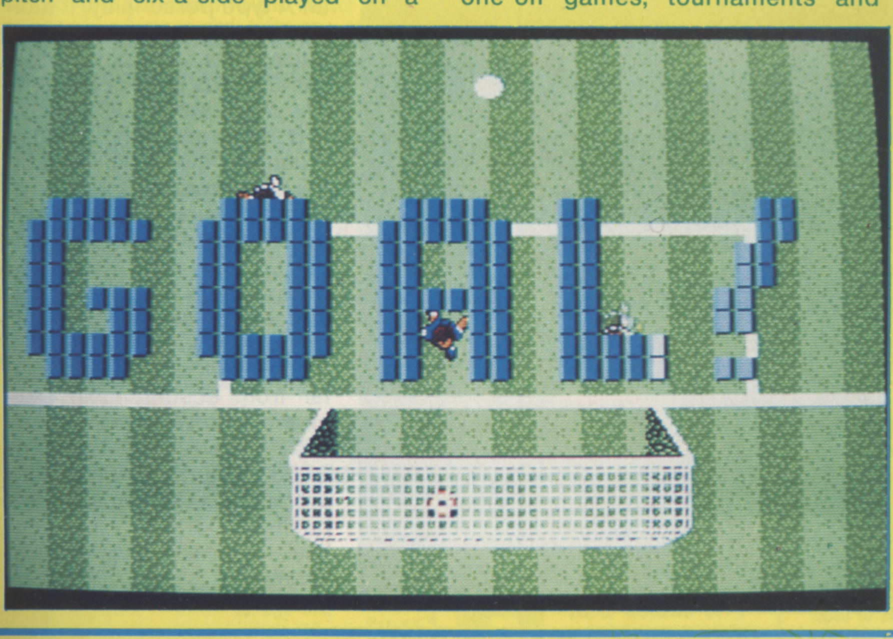
Winner of CCI's Oskar for 1988 arcade game of the year, Sensible Software's Microprose Soccer is now out for your Amiga!

Two games are included on the disk: eleven-a-side on a full-sized pitch and six-a-side played on a reduced indoor pitch. The outdoor game gives you plenty of options, for one-off games, tournaments and world cup competitions. During the match you have all the usual moves at your feet and a few more besides. Curvature of the banana shots can be set to one of three levels before the game, from a slight swerve to almost a complete circle! Sliding tackles, rain and diving goalies add to the chaos.

The Electric Pencil Co. have produced a surprisingly accurate conversion. The graphics could be more dynamic (including the scrolling), and a few added features would have been welcomed. Apart from that, the game is excellent. Remember those tasty trick shots from Horgan's Hints in the February issue? Well, they all work just as well in the Amiga game!

Graphically, Soccer on the 64 matches the Amiga version, and just has the edge overall for its smoother flowing gameplay. As the 16-bit game has nothing substantial over the original, charging £24.95 seems a bit over the top. An excellent game, but worth playing off against Anco's Kick Off before dusting down your wallet.

Price: £24.95



The Commodore Show Report

Nancy Picard fights the crowds to bring you news from the CBM frontline.

Expansion Ha
For AMIGA

The 13th Official Commodore Computer Show, held at the Novotel Exhibition Complex the first weekend in June, reminded me more of bargain-basement shopping in New York City than a professional trade show. Ninety-five exhibitors faced jostling, bargain-hunting crowds, estimated by sponsoring company Database Publications to have reached over eleven thousand.

The section of Commodore's, showing off their PC machines was appropriately quiet, but no one could, or wanted to keep the Amiga under wraps — for this is where the most exciting developments in the Commodore world are occurring.

Bytes and Pieces made hard disk history with the announcement that they will be the exclusive distributors of the Spirit line of hard disk drives, based entirely on the Spirit ST506 controller. They had the full range on display at the booth, and the aisle was full of memory-hungry on-lookers.

At Hi Tension's booth, Neil Armstrong and Hugh Haskel-Thomas were attracting attention with their video of the new graphics board they are producing for Commodore. My technical editor tells me that the design is based on a new chip from Texas Instruments and gives the Amiga up to 256 colours all on screen at once! But alas, it is suitable for the Amiga 2000 only and the software to drive it has yet to be written (though we hear that Photon Paint makers Microillusions may be interested...).

Arnor displayed the new version of Protext 4 for the Amiga and...it talks! It can say words, phrases and even paragraphs as well as reading the text as you type. I hear that it was written at the request of a user with a disability...

Best (UK) also announced an upgrade to their hot selling spreadsheet. Look for Plan/IP v3.0 on your shelves soon. At £139.95, you'd better start planning to save for it now.

Anco caused the software sensation with their Kick Off. And on the graphic front, Amiga Centre Scotland even had the first Amiga-designed hologram on view!

I also saw this nifty gadget called the Maxifit, which promises to remove all of the frustration of printing. Designed by an architect with an A type personality, it attaches to your printer and allows for perfect single sheet feeds time after time. The rrp is around £35.00.

The Directory!
AMIGA USER
AMIGA U

Database will not be mounting the usual November Commodore Show. However rumours that there will be another show in November are now circulating, and we expect to hear the official announcement from Commodore any day now. Our sources tell us that CBM are far from ecstatic over Database's handling of the event in the past and that they plan to do it themselves this time around. As anyone in the business knows, it's a fine line between 'market' and 'show'.

N.P.

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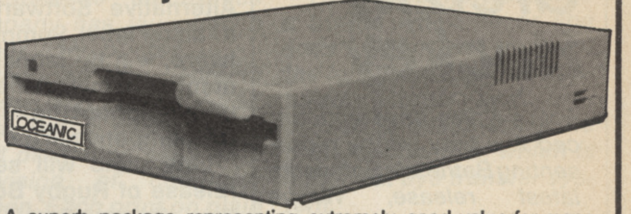

A superb package representing extremely good value for money, combining the Oceanic OC-118 disk drive (previously sold as 'Excelerator+') and the sophisticated GEOS system. Said by COMPUTE's Gazette to have "dramatic improvements over the 1541 in quality and reliability", the drive is a stylish and attractive compact unit featuring a direct drive motor and its own external power supply. GEOS brings the power of a graphic interface and integrated disk turbo to your '64 and includes geoPAINT, a graphic workshop, geoWRITE, a WYSIWIG word processor and many Desk Accessories. Many more extensions available - see below.

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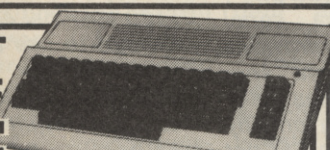

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Wayne Gretzky Hockey

Active Sales have announced that they will be representing Bethesda Softworks latest release, Wayne Gretzky Hockey in all areas of marketing and distribution throughout Europe.

Wayne Gretzky Hockey promises to set new standards in sports simulation. From the hard hitting action on the ice, to coaching from the bench, Bethesda tell us they have pushed the simulation to a new level of realism in software entertainment. Gretzky and other NHL players and coaches helped create this title and the results are impressive.

Wayne Gretzky Hockey has already been voted a finalist for the American Software Publishers Association "Best Sports Simulation of the Year" award. Available for the Amiga. Price: £24.99.

Alternative Releases

Alternative Software and its sister label, Summit Software, will be launching a number of major titles on 8 bit throughout the summer, the company tell us.

Late June will see the release of Rugby Boss on the Commodore, price £1.99. This game is the sequel to one of Alternative's most successful games to date and also one of the most successful budget games ever, Soccer Boss. Rugby Boss is a Rugby League management simulation in which the player adopts the role of the manager of a Rugby team. He is the boss for a season and during tht time he must try to ensure his side wins as many matches and trophies as possible.

The two sister labels have jointly secured the rights to a number of Martech and Dinamic products as budget titles. The Dinamic releases include Game Over and Army Loves. As both these products were marketed by Ocean in the UK, effectively the deal means that Summit will be the first budget software company to sell former Ocean full price titles at a budget price.

The Martech games include: Nigel Mansell's Grand Prix, Mega Apocalypse and Tarzan. All alternative games retail for £1.99 and Summit games for £2.99.

Amiga to VAX Connectivity

TSSnet is a software implementation of the Digital Network Architecture (DECnet) for use on the Commodore Amiga line of personal computers. With it, Amiga computers become Phase IV end nodes in a DECnet network that can consist of over 64,000 different computers running a wide variety of operating systems. Syndesis TSSnet is a complete Amiga implementation of TSSnet, originally developed by Thursby Software Systems.

The initial release provided asynchronous DEcnet communications (DDCMP) using the Amiga serial capabilities. This provides for multiple current sessions between Amiga tasks and tasks running on any other nodes on the DECnet network. It fully supported X11 for the Amiga from GfxBase, an implementation of the X Window System on the Amiga.

Included with this release is the Network Control Program (NCP), an intuitive application for complete control of the TSSnet node, and the Network Virtual Terminal (NVT), which, provides the ability to log onto other nodes on the DECnet network. It uses the DECnet remote terminal facility to open multiple sessions, if desired, on those nodes. A VT100 terminal emulator is provided to use the Virtual Terminal facility.

Also included are Task to Task Communications, which is a programming interface at the Amiga device level provided to allow development of Amiga programs to communicate with tasks on other DECnet nodes. Contact: Syndesis, 20 West Street, Wilmington, MA 01887, U.S.A. Tel: (508) 657 5585.

Madrigal Art Libraries Focus on Designers

Madrigal Designs and Brown-Waugh Publishing has released Madrigal Architectural Libraries, Amiga art libraries for design professionals in architecture, engineering, construction and interior design. Madrigal Architectural Libraries allow you to design a house and arrange all the furniture while creating working blueprints, Brown-Waugh tell us.

The first three libraries available are Floor Plan, Interior Design, and Framing and Foundation Details. Other libraries coming soon are Exterior Elevation, Landcsape Design, Interior Isometric Design, and Victorian Styles.

The libraries are available in IFF or Aegis 2D-CAD formats to be compatible with popular paint, desktop publishing and presentation programs, and to support printers and plotters. The CAD libraries are compatible with Aegis Development's Draw, Draw Plus, Draw 2000 and Modeler 3D programs when converted to the proper format using Draw 2000. They are also compatible with Gold Disk's Professional Page.

Price: (per library) $59.95 for IFF; $89.95 for CAD format (US). Contact: Madrigal Residential Designs, P.O. Box 2292, Santa Rosa, California 95405 (USA). Tel: 707-539-5675, or Brown-Waugh Publishing, 16795 Lark Avenue, Suite 210, Los Gatos, California 95030 USA. Tel: (408) 395-3838.

Twin-XX General Purpose I/O Board

ASDG have produced an Amiga host for the industry standard IEEE 959 expansion module interface. Also known as iSBX, the IEEE 959 interface standard has existed for many years and boasts an array of modules numbering in the hundreds. Called Twin-X, it is a full Zorro II (A2000) compatible Amiga expansion card which can host any two standard IEEE 959 modules or one double-wide IEEE 959 module. To the Amiga, the Twin-X is a completely standard fully auto-configuring expansion board. To each IEEE 959 module, the Twin-X is a completely standard IEEE 959 host.

Any of the hundreds of IEEE 959 modules already available can be used on the Twin-X and hence, on the Amiga. Contact: Amiga Centre Scotland, 4 Hart Street Lane, Edinburgh EH1 3RN. Tel: (031) 557-4242.

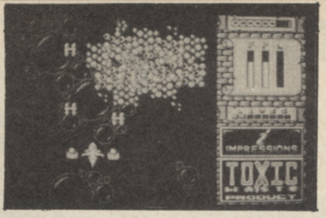
ROLL—OUT

And yet another arcade game from E.A.S. is Roll-Out, for 1 or 2 players.

Players take the part of little computer men, and the task is to steer the men through over 50 different levels, and battle with your enemies.

Roll out is not a simple action game, E.A.S. claim. The player/s must concentrate on solving each level of the game (all with different time limits), and find hidden 'smilies' throughout the game.

Prices: Amiga £19.99; C64 (cass.) £9.99, (disk) £14.99.



CHARIOTS OF WRATH

The most amazing shoot-em-up yet for the Amiga? Another?

Written by the team responsible for Sidewinder 2, amongst others, Chariots of Wrath features an excess of 300 possible combinations of extra weapons and seven totally different game types within the one game. Price: TBA.

'Why is that person talking into his hand?'

US-based Advanced Products and Technologies has announced the release of Explorer, a hand-held computer that responds to human speech rather than a keyboard. Based on an optimised microprocessor, it uses an artificial intelligence-base unit with instantaneous verbal commands; the user bypasses icon-manipulated interface systems.

The command is then sent to a PC via an RS232 port to activate a PC-resident application called Voice Drive.

The system specifications are: it measures 8-inches by 7-inches and weighs 3lb. and includes its own battery and recharger which can power the system for up to two hours. A total of 4MB or memory can be accessed and the device operates at 8MHz.

Combating Computer Hackers

Cream Communications, UK, is seeking to combat hackers with the Com-Loc, fitted between a PC and its modem. The lock can cut off any caller who enters the wrong access code. This means that after the hacker has tried 10 other codes, the system blocks the line completely for 30 minutes.

Furthermore, after 90 attempts, the system will produce a permanent block that can only be removed manually by the PC owner.

Contacts: Hitachi Denshi UK, London. 202 4311. Tel: (01) 493 0184. Battelle: US, (614) 424-4717. Phillips: US, (615) 521-4499. Marston Palmer: UK, Tel: (0902) 397777. Cream: UK, (0268) 728577.

Quick TV prints

A Japanese electronics company has launched a colour video printer.

Produced by Hitachi Denshi (U.K.), the VY-25E produced a clear colour print of images seen on a television of computer screen. Each print on plain paper costs o.5p.

The user simply presses a button when he or she sees an image. A frame of the television signal is captured, stored and processed o as to drive the print mechanism, which is a thermal dye transfer system.

KAYDEN GARTH

E.A.S. has announced the release of Kayden Garth, what the company claims to be a highly complex Dragon and Dungeons game.

The prisoners at the Kayden Garth detention planet have rebelled. You are the commander of the reconnaissance unit with the task of putting down the rebellion. With 30 Dungeons to explore, the anticipated playing time is at least 6·0 hours. Available on: C64 (c) £9.95, (d) £14.95; and Amiga £19.95.

Wangler

E.A.S. has announced the release of Wangler, a 3 dimensional maze game viewed from above. In Wangler, you must steer your ball through the maze, finding the necessary keys to gain entry into each level.

The game features four directional scrolling, 8-10 screens per level, over 50 different levels, plus a complete maze editor. This feature enables the user to quite simple create their own levels. Price £24.99

CD-1 standards

Standard setting for CD-1 has become the major focus of several large electronic companies. CD-1 is the next stage beyond CD-ROM (compact disk read only memory, which stores data and graphics only). It allows sound, text, still images, computer gra phics and limited amounts of video to be stamped on to a five-inch optical disk, which can be accessed via a special player resembling a personal computer.

As with interactive video, the disk is programmed so that questions can be asked, choices made and instructions followed via the screen display.

68030 Chip News

Motorola has recently announced a 50MHz version of its 68030 chip. The firm claims that the new chip offers the fastest clock speed in the industry and delivers 12 million instructions per second. The chip costs $650 (U.S.)

EA Cluebooks

Electronic Arts has announced the release of Cluebooks for Starflight, 688 and Neuromancer. Starflight and 688 Attack Sub are available for the IBM PC and compatibles, Neuromancer is available for the C64 with an imminent Amiga release and a PC version planned.

Other cluebooks available are for The Bard's Tale I, II, and III; The Mars Saga, Wasteland, Sentinel Worlds and Deathlord. All cluebooks can be obtained for £5.00 from Electronic Arts' Customer Service. Contact: Electronic Arts, Langley Business Centre, 11-49 Station Road, Langley, Berkshire, SL3 8YN. Tel: (0753) 49442.

HB MARKETING WIN MAJOR CONTRACT FOR AMIGA PERIPHERALS

HB Marketing Limited has announced that it had secured "probably the largest single order ever placed for Amiga-related peripherals since the Amiga was introduced," according to Keith Howell the company's Technical Director. "The initial contract alone is worth in excess of half a million pounds."

The company has already begun to supply the first of several thousand genlock devices which will form part of a sophisticated computer-controlled audio visual presenter called Teleslide. The system will be launched at this year's AV Show by OEC, Teleslide's inventors.

"We have been retained by OEC as advisers on the Amiga-related aspects of Teleslide, given our obvious understanding of both Amiga hardware and software and above all for our contacts within the Amiga community." commented Howell at the launch of Teleslide.

HB Marketing will be managing other sizeable projects on behalf of OEC in connection with the Teleslide programme.

Contact: HB Marketing Ltd., Brooklyn House, 22 The Green, West Drayton UB7 7PQ. Tel: (08950 444433.

AutoMAG

MegageM has announced the release of the HAMandel AutoMAG cell animator module. The AutoMAG module is a stand-alone program for creating sequences of up to 100 Mandelbrot Set images with set magnification of 6.66%. By generating only small magnifications from one image to the next, a series created by AutoMAG can be assembled into a smooth animation.

The animation sequences made with AutoMAG use the HAM+ graphics mode of any Amiga for each individual ILBM standard image over two hundred. Total colours are available. HAMandel's AutoMAG module represents a first for the personal computer domain of fractal art: Mandelbrot Set zoom magnification animations done previously using only supercomputers can be generated with any Amiga. Special algorithms can sense a 68020 processor and use it to produce images 5-8 times faster than a 'stock' (68000) Amiga, the company tell us.

Prices: HAMandel 2.0, $39.95; HAMandel 2.0 with AutoMAG Module, $59.95; AutoMAG Module (for registered HAMandel users), $20.00; HAMandel DEMO Disk (animation demo for >1 meg), $5.00; shipping (any of the above) $1.25 (US). Contact: MegageM, 1903 Adria St., Santa Maria, CA 93454.

X11

GfxBase has released the X11, which the company claims supports displays up to 1008 x 1024 on a special monitor as well as resolutions down to 640 x 480 on lower cost monitors.

X11 on the Amiga takes advantage of the custom blitter chip to speed up operations. The Amiga X11 uses tcp/ip over ethernet for connections to other machines and a highly efficient shared memory message passing scheme for local connections.

Amiga X11 also includes several clients that run under the native Amigados os, such as uwm, xcalc, and bitmap. By including local client capability in a very low cost workstation, network bandwidth requirements are lessened compared to a simple X terminal.

Amiga X11 coexists with the native windowing operating system of the Amiga. Because the Amiga can split its display into multiple bitmaps with different resolutions and colormaps, one can be using uwm in one X screen, twm in another screen, Intuition in the standard Amiga Workbench screen, and any number of the amazing paint/animation programs available for the Amiga in another screen.

The X Window System for the Amiga has been tested and works with Dec Vaxes, Suns, Apollo's, HP equipment, and others at the X Connectathon in February of 1989.

Xlib and Xt libraries are planned for introduction later this year.

'Intuition' Based K-Data

Kuma Computers Ltd. a software house producing WIMPS based serious application packages, has announced the release of K-Data database for the Commodore Amiga.

K-Data makes full use of the user friendly features of the Amiga's 'Intuition' windows operating system, making it easy to use with commands selectable from either drop down menus or direct entry via the keyboard, the company claims.

Multiple datafiles can be held in memory simultaneously. The size of datafiles is limited only by the disc capacity of the system as K-Data uses a virtual memory system, loading a buffer of data into memory and accessing the disk for further data as required. Variable length records are used, taking up only the memory space required by the data entered rather than reserving the entire potential space.

Price: £49.995 (including VAT). Contact: Kuma Computers Ltd, Horseshoe Park, Pangbourne, Berks. Tel: (07357) 4335.

Miniature Interface Converters

Action Computer Supplies has widened its range of datacomms equipment with the addition of serial-to-parallel, parallel-to-serial and bi-directional interface converters, the company told us. These change serial format signals to parallel format and vice versa, and support both DTR/Handshaking and XON XOFF protocol, and all serial formats; Baud rate is 300-34,800. Contact: Action Computer Supplies, Abercorn Commercial Centre, Manor Farm Road, Wembley, Middx, HA0 1WL. Tel: (0800) 333 333.

Solid Oak Disk Storage Files

Made from American Red Oak to match the type of furniture and fittings used in 'front offices' and similar areas, Amaray's solid oak diskette boxes are available from Action in 3.5in and 5.25in versions, both with lockable solid-oak tambour roll tops.

The 3.5in version holds up to 50 diskettes, and costs £45.00; the 5.25in version holds up to 70 diskettes, and costs £54.00. Special discount prices for orders over £200.00 are £39.20 and £50.00 respectively. Contact: Action Computer Supplies, Abercorn Commercial Centre, Manor Farm Road, Wembley, Middx HA0 1WL. Tel: (0800) 333 333.

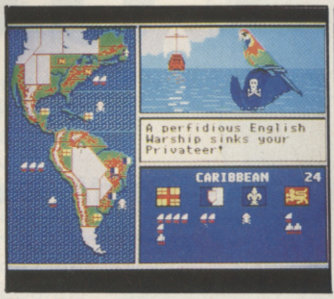
Gold Of The Americas and Fire King

Strategic Studies Group has announced the release of two new titles, Gold of the Americas, a historical strategy game with impressive graphics and Fire King, an animated action adventure.

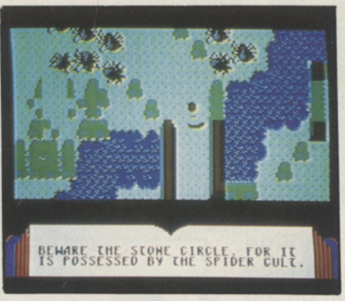
In Gold of the Americas, fame and fortune are waiting to be claimed in the New World. The player commands the expeditions of eager volunteers from England, France, Spain or Portugal. He must establish and defend his colonies from raids and invasions whilst attacking his competitors with his armies. He must rule the seas with his trading ships, privateers and galleons.

Once established in his territory the player must invest in his colonies, satisfy the demands of his European Master and keep a little back for himself.

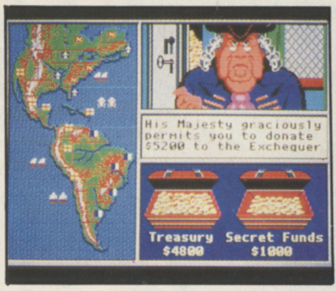
Gold of the Americas can be played by up to four players. It features a historical or ruthless and cunning computer opponents. It supports the CGA, EGa, Tandy, graphics modes. Price: £24.99.



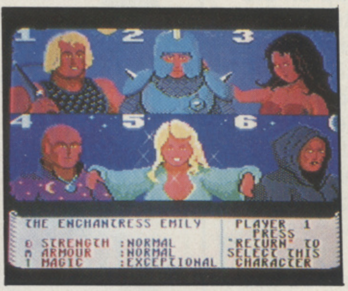
A perfidious English Warship sinks your Privateer!



BEWARE THE STONE CIRCLE. FOR IT IS POSSESSED BY THE SPIDER CULT.



His Majesty graciously permits you to donate $5200 to the Exchequer



THE ENCHANTRESS EMILY
S STRENGTH :NORMAL
A ARMOUR :NORMAL
M MAGIC :EXCEPTIONAL

PLAYER 1
PRESS
"RETURN" TO
SELECT THIS
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In Fire King, the great Fire King is dead and the world has been plunged into darkness. During the player's journey through the enchanted forest, ancient temples, burning deserts and deep dungeons he must solve intricate puzzles and riddles. The player must face the fully animated monsters of Chaos: Fire jaunts, Vampire bags and wild whirlwinds. The nearer the player comes to the answers, the closer he is to the Death Beasts.

Fire King features a continuous top down scrolling view of the world and two player mode which allows side by side fighting or separate adventures. Fire King is available for the C64. Price: £18.99 (disk).

PD Plus 4 Software Service

Kingsway Computer Services has announced a new Public Domain software service for owners of the Commodore Plus 4 computer with disk drive.

The disks contain programs in the categories of Games, Education Programs, Business Programs and Utilities. Currently there are 29 disks in the catalogue. Each disk contains on average about 15-20 programs, and the company says it will add more disks in the near future.

Disks are available on a sliding scale of charges depending how many are ordered at any one time. Prices start at £4 per disk and decrease to £3.75. This prive is fully inclusive of the media, postage & VAT.

Kingsway Computer Services specialize in supplying Public Domain software and also produce a catalogue of Public Domain software for the Commodore 64 and 128 (in 128 mode). They currently have about 150 disks of Public Domain for these machines.

Kingsway Computer Services also provides a large selection of Public Domain Software & Shareware for Commodore PC compatibles and the Commodore-Amiga. Contact: Kingsway Computer Services, 140 Rushdale Road, Sheffield S8 9QE. Tel: (0742) 588429.

Black Magic

Black Magic, from E.A.S., blends together various game ideas to bring you what they claim is an original and feature packed adventure game for the Amiga.

In Black Magic, you must steer your wizard carefully through the different levels of depth collecting diamonds and depositing them safely in the baskets. The game features more than 50 different levels plus a bonus every 5th level. Each level is completed when you have filled all the baskets, avoiding enemies as any touch with them will kill your wizard. Price: £24.99.

Power Supplies Announced

Galatrek has announced the release of the SML3500 3.5kVA and SML5000 5kVA Uninterruptible Power Supplies (UPS). Each SML comes complete with a front panel alphanumeric display, digital keypad and standard RS-232 port to allow communication to the protected load or the use of Galatrek's remote control and display panel.

The RS-232 can be used to access the protected computer's communication package, as with an IBM AS/400 to initiate an orderly system shutdown on mains failure. The front control panel and modular design enable immediate fault diagnosis and simple repair by exchanging standard modules.

Each UPS has a static switch for high start-up loads and emergency inverter failure. Castors are standard to allow easy positioning of the UPS and the centralised input/output connections make for easy and quick installation. The units are finished in a neutral satin cream finish. Contact: Galatrek International Ltd., Scotland Street, Llanrwst, Gwynedd LL26 0AL. Tel: (0492) 640311.

GAC Plus

Incentive Software have rewritten and released the classic Graphic Adventure Creator (GAC) now to allow "stand alone" Disc Accessed Adventures to be written. GAC Adventures can now be limited only by the number of disks.

Graphic Adventures created on GAC+ can also be published without further permission or payment to Incentive, the company tell us. The new "Disc Access" GAC+ was recently released at £29.95 on disk complete with manual. Existing GAC owners can upgrade their GAC by returning the original tape or disk only with £10.00. Contact: Mandy Rodrigues, exclusive distributor, 24 Maes Y Cwm, Llandudno, Gwynedd LL30 1JE. Tel: (0492) 77305.

MORE 64 POWER!

Peter Gerrard continues his journey. This month, the software ...

Since this month's deadline seems to have crept up on me like Carl Lewis creeps up on the finishing line in a 100 metre sprint (must be something to do with all the cricket on television), the inside of the Gerrard 64 must remain a secret for at least another month. Why they had to make the darned thing so difficult to get into I do not know, unless it was just to make it impossible for people like me to open it up and have a peek around inside.

As we will not be going inside the 64, then, we shall remain outside it. Last month we touched on some of the available hardware for the machine, that vast range of disk drives and printers, tape decks and cartridges, all of which can be linked up either happily or otherwise. This month, carrying on in a fairly logical manner, we shall be taking a look at software.

I hesitate to say this, but the 64 probably has more software available for it than most of the other computers currently on the market. It cannot really compete in terms of quantity with something like the Spectrum, which has an astonishing amount of software capable of running on it (just look at the shelves of any store that sells computer software), but in terms of quality it does very well indeed. If, in the dim and distant past, the 64 has succeeded in becoming the computer used in schools, instead of the BBC machine which we now see on news bulletins at every available opportunity, there might have been even more software.

Educational software

Whether this would have improved the quality, though, is highly debatable. Most educational software is not worthy of the name, and although some companies do have an honest stab at producing decent stuff, the vast majority of it seems to have fallen off the back of a blackboard. Certainly there have been very few times over the years when I have been even marginally impressed by something bearing the label 'educational software', as most of the programs just seem to try to make you remember things in parrot fashion, without any attempt at actual teaching. Programs for youngsters are probably the best ones, the 64s graphics and sound can be used to good effect in providing a continuous stream of mathematical puzzles and diversions, but apart from that I think we can safely ignore the educational field and wait for all the letters of protest to roll into CCI Towers.

Populous — coming soon for the C64!

A brief diversion, speaking of letters of protest. T.F. Bernascone of North Ormesby wants to know why PRINT CHR$(18) won't turn on reverse print mode on either of his two Commodore 64s (do two 64s equal one 128?). It will, I assure you, but only in the following manner:

```
PRINT CHR$(18);"I'M IN REVERSE
PRINT MODE!"
```

It won't work like this:

```
PRINT CHR$(18)
PRINT "I'M NOT IN REVERSE PRINT
MODE!"
```

In other words, it will only affect a line of text that is printed on the same line as the command. You don't even have to worry about turning it off, the 64 will automatically do that for you. My main use of CHR$(18) is in a program listing, where I might define a variable REV$ to be equal to CHR$(18), and then use something like PRINT REV$;"A LITTLE BIT OF TEXT.". It saves filling a listing up with reams of unintelligible Commodore control characters.

Word processing

But enough, back to 64 software. When I first got my 64 way back at the dawn of time, or so it seems, there were two main reasons for buying it. Number one, I was familiar with Commodore kit, and number two, I needed a computer at home for my work. The 64 had to do several things, but one of the main things was to act as a word processor.

Now there is one major disadvantage of the 64, and that is that it only has a 40 column screen, which is a bit of a limitation when you are trying to process a few words. If you are setting out a script, for instance, you really do need 80 characters available, one way or another. There are two approaches adopted by the various programs that try and overcome this. One is to have a scrolling

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screen, so that only 40 columns are available at a time but more become available by scrolling left or right across the document, rather than up or down. The other approach is the Tasword one, where you have a specifically designed character set that does allow you access to an 80 column display.

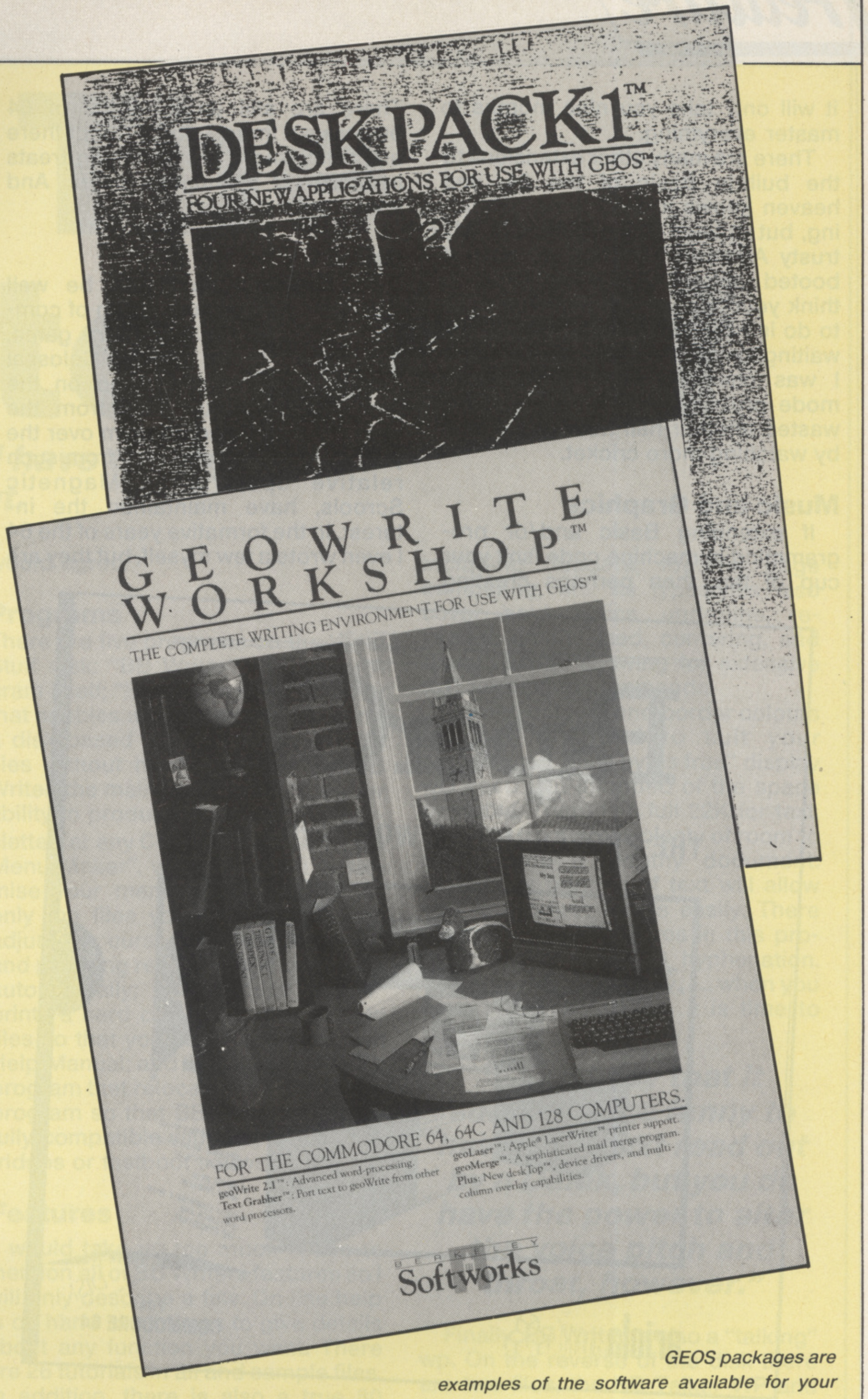
Both approaches have their merits, but being in the fortunate position at the time of receiving numerous word processing packages for review, I settled on the scrolling display of PaperClub, still for my money the best word processor available on the 64. It is so fast! What's more, you can perform simple mathematical operations within it, so that you do not have to keep a calculator by your side when entering competitions in obscure journals like The Times. The final crowning glory of PaperClub, for me, was its ability to perform an alphabetical sort. As anyone who has ever written a book of non-fiction will know, there comes that dreaded time when you have to provide an index. Six years ago the only way of doing this on a 64 was to go through the manuscript and, as a separate file, enter everything of relevance in a long list. Then, it had to be slowly sorted into alphabetical order. Along came PaperClub, and the job was done in seconds.

So the 64 is eminently capable of word processing, providing you get the relevant interfaces to connect it up to a printer of better quality than the Commodore ones available at the time, and providing also that the software is capable of driving that printer.

Spread sheets

Still on the business front, there are many packages of the spreadsheet variety available, as well as programs for budding home accountants and people running payrolls and stock controls. Often with these programs the only fault with them lies not so much in the 64 or the programming but in the disk drive that they are trying to use, Commodore disk drives not being renowned for their great speed or capacity. Within those confines, though, a small business that set up all its stock control on a 64 six years ago is probably still quite happily using the same system today.

They might also be using something like GEOS and all its subprograms like GeoCalc, GeoPublish, and so on. Combining all the GEOS programs together gives an impressive amount of power to the 64, giving you the ability to do a spot of desk top publishing (and if anyone complains that they're fed up of the standard 64 character font, then FONTPACK Plus boasts a rather impressive 53 different fonts), word processing and spell checking, as well as having all the pull down menus and mouse clicking action that users of Atari STs and Amigas will have grown used to. And as if all that wasn't enough, there are two aids on the market that work from within the Geos environment, one aimed at the Basic programmer and one at the machine code programmer.


DESKPACK1™
FOUR NEW APPLICATIONS FOR USE WITH GEOS™
GEOWRITE WORKSHOP™
THE COMPLETE WRITING ENVIRONMENT FOR USE WITH GEOS™
FOR THE COMMODORE 64, 64C AND 128 COMPUTERS.
geoWrite 2.1™: Advanced word-processing.
Text Grabber™: Port text to geoWrite from other word processors.
geoLaser™: Apple® LaserWriter™ printer support.
geoMerge™: A sophisticated mail merge program.
Plus: New deskTop™, device drivers, and multi-column overlay capabilities.
BERKELEY
Softworks

GEOS packages are examples of the software available for your machine.

Basic tools

These are called Becker Basic and GeoProgrammer respectively, and with Becker Basic and Geos all running together you've still got 16K left over for your own masterpieces. That's only if you have no pull down menus, though (bang goes another 8K for those in the form of high resolution graphics). Two hundred and seventy-three new commands should be enough for most people — learn one new command a day and

cont. on next page

it will only take you nine months to master everything.

There are many other extensions to the built-in Basic of the 64, and heaven knows it does need extending, but at least Basic IS built-in. My trusty Amstrad PCW has to have it booted in from disk every time, so think yourself lucky that all you have to do is turn the 64 on and it's there, waiting for you. As indeed it was when I was checking the reverse print mode problem outlined above, and wasted another half hour afterwards by watching more cricket.

Music and Graphics

If extending Basic and/or programming in machine code isn't your cup of tea, then perhaps creating fancy sprites, playing music, and re-designing character sets are. Ever since the early days of the 64 there have been numerous programs designed for 'playing' with the 64, and SuperSoft produced and continue to produce some of the best ones. Of course, the musical and graphical powers of the 64 have been pushed way beyond anyone's expectations when it was first launched, as lovers of games (they had to get a mention in the end) will know. Some of the stuff being produced today would have seemed unbelieveable six years ago, so who is to say that the 64 is dead and buried? What will programmers be producing six years from now? There are still an awful lot of 64 owners out there, and no doubt there are plenty more programming treats in store for us humble users. And speaking of games …

Games

Readers will no doubt be well aware that my favourite form of computer game is the adventure game. Ever since I first played Colossal Cave, I have been hooked on the genre, and various titles from the likes of Level 9 and Infocom over the years, along with offerings from such relative upstarts as Magnetic Scrools, have maintained the interest. In the formative years of the 64 I even wrote a few myself, but they are so primitive by today's standards that I shall attempt to forget them. They stood comparison with Scott Adams' early work, I suppose, but that doesn't mean much really when you look at those early games in the light of today's developments.

Nowadays there are thousands of adventure games available for the 64, and if that's your field of interest then you have plenty to sustain you. As Andy Moss faithfully reports for us each month, there are more and more role playing games coming onto the market as well, and such choice items as Defender of the Crown, Populous and the growing legend of Leisure Suit Larry and his strange activities are also out there waiting to be played.

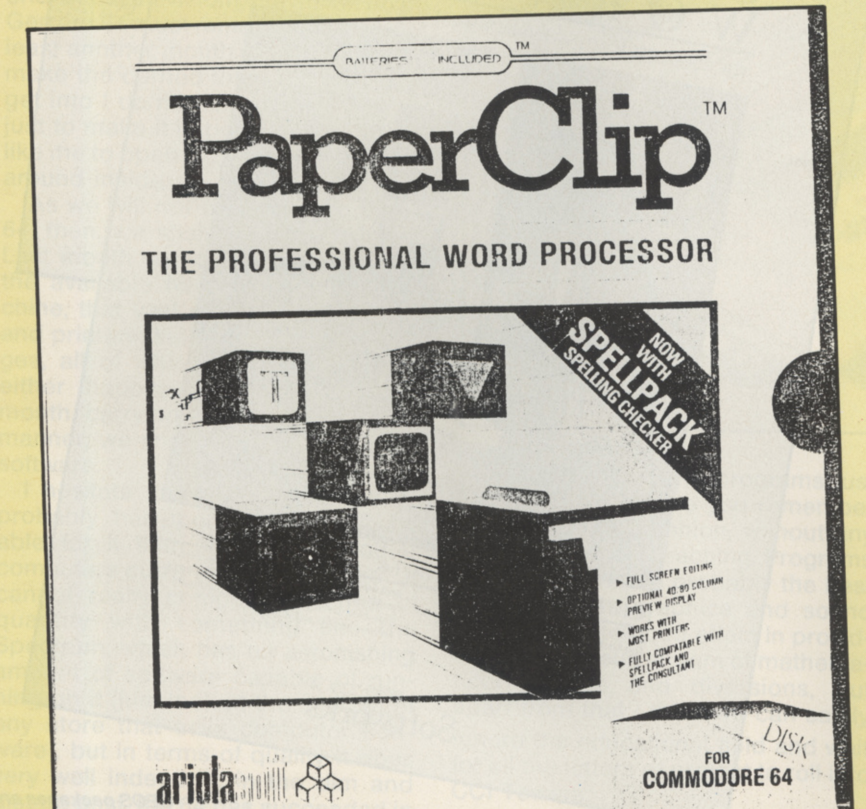
A disturbing trend, though, as far as I'm concerned, is the number of games of the arcade-adventure variety, which threaten to wipe the traditional adventure off the face of the computer. Nothing against those sort of games, but the original adventure idea of solving puzzles whilst reading reams of text still constitutes my favourite type of game (piccies optional) and I hope that not every company leaps on the arcade-adventure or RPG bandwagon. There will, I hope, always be some small corner of the computer world that will forever be traditional in its adventures, and we can continue to do battle with balrogs and borrow wights, or bank and baliffs as the case may be.

Arcade game freaks, of course, are well catered for on the 64, and games like Jumpman still stand up today. The graphics might not be up to the mega standard of some of the more current offerings, but the game has class written all over it. And it is, after all, about seven years old. Almost as old as the original International Soccer, which just goes to show that a good idea skillfully implemented is more important than having sprites the size of Everest leaping about the screen to the accompaniment of a fifteen minute Hubbard soundtrack.

So you see, there is a vast array of software on the market for the Commodore 64, which can turn that computer's hand to just about anything. To some people, there has never been anything other than Thatcher and the 64, although some of us remember the days of Callaghan/Wilson and Vic/Pet. You've never had it so good? I'm not getting involved in any policital arguments, but as far as 64 software goes the phrase certainly rings true.

There is plenty more to the 64 than playing games. Apart from teaching yourself to program (and here the 64's lack of Basic power is a positive advantage, I feel, as you learn so much more about the computer) there are many other things to do. Keep accounts, rescue maidens, spread a few sheets, process a few words and score a few goals, the 64 is still a power in the land. And if you've never imagined using your 64 for anything other than playing games, try picking up a cheap word processor and writing a few things. I'm sure ***CCI*** would love to hear from you! I'm now going to open up my 64 even if, vulture fashion, I have to drop it onto a rock from on high. Well, perhaps not. Bye for now. I wonder how the cricket's getting on …

P.G.


BATTERIES INCLUDED
TM
PaperClip
TM
THE PROFESSIONAL WORD PROCESSOR
NOW WITH SPELLPACK SPELLING CHECKER
FULL SCREEN EDITING
OPTIONAL 40/80 COLUMN PREVIEW DISPLAY
WORKS WITH MOST PRINTERS
FULLY COMPATABLE WITH SPELLPACK AND THE CONSULTANT
DISK
FOR COMMODORE 64
ariola

The Write Stuff

Does the Write Stuff still have the right stuff? Bob Collyer checks it out.

The clever little wp has been around now for a couple of years but has never really been given a chance to prove itself this side of the Atlantic. The program, however, has many very good and very powerful commands that rival some of the more expensive utilities around. The publishers, Busy Bee Software seem to have thought of just about everything, including the *talking* word processor.

The first thing you must take into account when you decide to buy a wordprocessor for the first time, or indeed, replace your old faithful, is that it will be compatible with your existing printer set up and is good enough to configure with most other printers.

In this case, the Write Stuff does have the right stuff; its own reference manual was typeset using the BB Writer program and the final printed result was driven through an Okidata Laserline laser printer. The results are outstanding.

For a long time now I have kept in touch with the all latest developments in Desk Top Publishing packages. I was astonished to read the Notes in the manual that refer to the DTP possibilities of BB Writer. The publishers said that there were more drawbacks than there were advantages to using most graphics based page processors, that is to say that the quality of DTP designer fonts suffer from a lack of clarity by using graphics. With most of these fonts, each character is composed from a matrix of 8x8 dots, whereas the more traditional wp programs will take advantage of all the pins available on your precious printer. However your style is restricted to your draft or NLQ settings.

You get an equally good looking page make up system if you used a pair of scissors and glue, sticking little pieces of typesetting together with cutout pictures to make up your page, some say. Maybe some of you would agree.

Programs

There are five programs on the Write Stuff disk: "BB Writer", the wp program itself; "BB File Reader", a utility that enables any other user receiving a disk based document to read the files without having to own the BB Writer, the main benefit of this is your ability to produce an electronic newsletter for any C64 owner to read; "BB Menu Maker", which lets you customise your menu screen to display only the files you want, letting you adjust the cursor over the file name and pressing return to load up the file automatically; "BB Manual Maker" prints a hard copy of all the 60 help files so that you can make your own Help Manual; and "TS Relocator" is a program that relocates the turboSave program so that BB Writer becomes fully compatible with fast loader cartridges or fastboot software.

Features

It would take up too much space to mention all of BB Writers features so I will only describe a few. On line help is on hand at all times to give details about any function you want. There are 26 tutorials in all and sample files. In addition, there is also a true 80 column hi-res preview display in which the features like Bold or Underline are displayed.

The Write Stuff supports the 1764 RAM expander and has a full hunt/search and replace facility. One thing not usually found on many word processors is the alternative Dvorak keyboard layout. (It re-arranges your QWERTY layout but if you are unfamiliar with Dvorak — your brain explodes! So be careful!). It also has great support for user Macros (those little phrases that you want stored so that one keystroke will print these out instantly).

The BB Writer has complete page formatting, as you would expect, including headers, footers, page numbering, etc. Its typestyles also cover bold, italics, underline, reversed, emphasised, centering, and double width, allowing for extensive text formatting commands.

Screen colours and border colours may be changed to suit your preferences. The "bytes free" display will keep you informed of the space available. There is a full 22K for text, however, so there is plenty of room to store quite a lengthy document. Multi-copy printing of text will allow you to produce labels easily. There are many more features in this product; it even has soft hyphenation. You know what they say....... when you have soft hyphenation, it is time to give up!

> ***"I must say that it sounds quite funny to have your text read out by a Dalek, but you do have the power to alter the voice pitch and throat, however."***

Finally, BB Writer is also a "talking" wp. On the reverse of the disk there are two files, the BB Talker WP and S.A.M. (Software Automatic Mouth). I must say that it sounds quite funny to have your text read out by a Dalek, but you do have the power to alter the voice pitch and throat, however.

Conclusion

The Write Stuff has been well thought out and designed for use by everyone from a five year old child to the seasoned computer wp expert. When you are familiar with the basics, there are over one hundred other functions available to make the best of your finished document. Thoroughly recommended.

B.C.

See special offer on page 22.

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!
1
"
2
#
3
$
4
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Q
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Computer Hobbyists Handbook

(Bernard Babani £5.95)

This book is by R.A. & J.W. Penfold, who have produced countless books on various subjects in the computing and electronic hobby field. It is a quick reference guide to many different subjects associated with computing. This book consists of 120 pages divided into 8 chapters and appendices.

Chapter 1 is an overview of the common microprocessor types and what they can do in terms of memory access etc. There are no lists of opcodes, but there are register diagrams of some processors.

Chapter 2 provides what I think is the most useful information in the book. it covers interface specifications and pinouts. Video, 232, MIDI IEEE488 are all covered. There is no in depth technical information but all the pinouts are shown and there is a very easy to follow description about each type of interface; this information is sufficient to allow the user to understand what is going on and to sort out any problems that might occur. Also included in this chapter is a subsection on RS232 serial interfacing with diagrams for null-modems (useful for linking two computers together).

Chapter 3 concentrates on various programming languages. This is a bit superficial, and I do not agree with some of the comments made about some of the languages, especially Forth. Also missing from the list is C (it is mentioned in passing but with no details). A simple list of languages and what they are best suited for would have been more useful.

Chapter 4 covers number systems and is a good standby for any book. It provides a useful reminder to the reader. Chapter 5 is about operating systems and mainly deals with MS-DOS and the like. It does, however, have a little about the Amiga WIMP system (but it is only a fleeting mention).

Chapter 6 covers computer graphics. This is only a very brief overview, but it does cover the various types and lists the differences. It mentions the HAM mode of the Amiga, but makes no attempt at explaining the operation of it.

The following chapter covers terms used in computing and a detailed look at MIDI and the way in which it works. Next comes a few appendices, covering ASCII, Epsom printer controls, Abbreviations, Support chips, Dec-Bin-Hex convertor, and standard flow chart symbols. A reasonably good index appears at the end.

This book is as useful as the user makes it, and as such it would find many homes with a wide variety of computer users. The strength of chapter 2 alone (Interfaces) makes it a good purchase, but I am fairly unusual in that I have to deal with quite a few different computers and associated interfaces during the course of my work. It might not prove to be quite so useful to the average user. However the book is inexpensive as far as text/data books go, and at £6 it is a good buy and I would not consider it money wasted.

A.E.

Published by Bernard Babani
ISBN 0-85934-196-8

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64 Diary

Peter McDonald reviews a golden diary/database combination for the only 'slightly unorganized'...

To my delight I saw recently that Handic's "64-Diary" is being advertised by *Dimension Computers Ltd* of Leicester at £9.95. This *must* be a bargain, for this useful program cost about three times that amount when I bought it five or six years ago.

Its title is misleading. It can, of course, operate as a Diary, and that is its most obvious and convenient use. But it can also earn its keep as a simple database, satisfying the needs of many home micro enthusiasts who need few records and fewer fields.

First, the basics. "64 Diary" is on cartridge. The data can be save either to tape or to disk; this makes it suitable for any 64-owner (or, of course, any 128 owner, operating in 64 mode).

Menu Options

With the cartridge in place, you switch on the computer. A menu appears instantly in the screen. The options are:

A Add or change
B Scratch Block
F Find ???
B Block search
L List data
D Save on DISK
T Save on Tape
X Load data
N Format a new disk

And there is a note at the bottom of the screen saying that **23580 = Free Space.**

If you already had data stored, you would use the "Load data" option to bring it from disk or tape into memory. But let us imagine that you have just bought "64 Diary" and are starting from scratch. I shall assume that you have a disk drive.

First you might need to format a disk. With a blank disk in the drive, you simply tap the "n" key. This brings to the screen the legend "Format a disk (disk data will be lost) ARE YOU SURE! y/n?". Type "y" and the word "WORKING" appears. Formatting on my 128D took about 75 seconds.

Now we can open a file. Press "a" for Add and the menu gives place to a line reading "Input date or Block No." We will stick with the dates for the moment. Imagine you want to enter Jane's 21st birthday on 14th August. you type "14aug" (i.e. no space between the day and the month). This brings to the screen a diary "page", headed August 14. You type in "Jane's 21st". Then press RETURN, then an asterisk, and RETURN. The menu reappears on the screen. If you now type "21aug" you will be given a new page bearing that date. You make your entry and then go back to the menu.

Your two entries happen to be in date order. Now enter one for 19th August. The three entries were entered in the order 14, 21, 19. Tap the "l" key (for list data). You will see listed on the screen, in correct date order, the entries for the 14, 19 and 21 August. In other words, the program does the sorting for you.

Return to the menu. Now we can save the items by pressing "d" for save on disk. The menu disappears and you are asked to type the file name. Let us suppose that you choose, simply, "diary". The disk-drive will do its stuff and when the menu reappears it will be headed "diary file" (instead of '64-Diary file" which is the default heading). You can add new entries, or revise existing ones, by using the "Add or change" option. Indeed that option can be used if you simply want to remind yourself of your appointments for a given date. Type the date (see above) and after inspecting the entries, simply return to menu.

So far, we have done little that could not be done with a Pocket Diary and a ball-point. And indeed there is another facility — List. This allows you to scroll through all the entries in date order, just like flicking through the pages of your diary . . . except that blank 'pages' are not shown on the screen.

But, of course, "64 Diary" will enable you to do more than that. If you want to remind yourself of the date of Jane's 21st birthday, choose "b" from the menu. This gives a "block search". The words "search for" appear at the foot of the screen and you can type in "Jane" and press RETURN. The page recording her birthday (14 August) will immediately appear on the screen. What if more than one date has an entry relating to Jane?? The first of these will appear on the screen and by typing the "=" sign followed by RETURN you can continue the search, leafing through the "Jane" entries in date order. A list of commands at the bottom of the screen shows you how to obtain hardcopy, or return to menu or continue the search.

Printing

Hardcopy? Yes, you can print out the contents of any page. One snag is that the date does not appear. Only the entries are shown. But perhaps that is not too much of an inconvenience. "64 Diary" seems to be written for use with Commodore printers. At first I could not get the auto line feed to work properly on the STAR LC-10. However I altered the dip switches, the lines just piled one on top of the other. This puzzled me because the STAR usually emulates a Commodore printer if all the dip switches are on. But that did not work this time. Then I realised what was wrong: I had a Buffer linked to my printer. I pressed its reset button, and all was well; indeed it prints when set for VizaWrite Classic switches 1, 4 and 5 down and the rest up.

What happens if you choose "f" (Find ???) instead of "b" (Block search)? You will be asked what the search is for. Type "Jane" and press RETURN and instantaneously there will appear on the screen the legend "August: 14". If you only want to check the date, you now know it. If you want more you can use the Add or change option to look at the 14aug page.

In fact I used "test" as the only item on the pages for the 19th and 21st August. So if I ask for "test" after typing "f", both the 19th and the 21st will be listed on the screen . . . just the dates, of course, not the items under them. If I add a further date (July 31st) and enter (say) "Poll Tax Protest", I can illustrate an interesting feature of this program. For if I then type "f" and enter "test", the dates listed will be July 31st and August 19 and 21. Why July 31st? Because the word "Protest" includes the letters t-e-s-t in that sequence. In other words, the search always looks for a string of letters rather than a word. What is the point of listing dates containing certain entries? It is often useful to identify repetitive events. If you were asked to speak at a meeting of your local computer club, you would have all the meeting dates listed in this diary. It is simple to list them and then choose the one which will suit you best. Or you may be keeping a record of petrol consumption and want to know on what dates you bought petrol. Or you might list bills to give you an idea of the sequence and the frequency so that you could plan your budget better. If you want information about events, then the Block Search is better, for you can leaf through the pages relating to all the dates which are relevant.

The diary will only cover a year, but this is no real disadvantage. It can always cover a year from now because you can, if you wish, scratch the blocks relating to dates which have passed.

Therefore, because the diary is meant to cover a (non-leap) year, it only has 365 "pages" (or "blocks" as they are called in this program). So if you want to use it as a database (e.g. to store names and addresses) you are limited to 365 entries. similarly, you would find it inadequate for a hi-fi catalogue if you own more than 365 disks.

Creating a database

How do you create a database? The same way as the "diary", except that, instead of using dates, you use "block" numbers. If you try to use number 366 or any higher number, it will be rejected. But subject to that, you can enter them in any order you wish. When you list them, they will be in numerical sequence.

Using "64 Diary" can be difficult when trying to add items to a database already saved. When you load your database and want to add an item, you press "a" (for Add or change) and you are immediately asked for the input block number. This would, of course, normally be the next in sequence. But what if it is some weeks since you entered the last item and you cannot remember its number? You can list the items, but that takes some time.

My solution is this: when I have typed the last entry in a session, I make another entry on the next block number. This, appropriately enough, is the word "next". When I return to this program again, I load it and do a block search for "next". This automatically takes me to the block which is to contain the next item. I simply type the new item over the word "next" in that block, noting the number, so that I can enter the next item in the block bearing the next number.

Changes can be effected in a block not only by use of the Add or change option but also by finding the item on a block search and then carrying out the correction. Provided it culminates with the RETURN-asterisk-RETURN sequence mentioned above, the corrected version will replace the old one, ready to be saved in due course.

Conclusion

I am confident that if you buy this golden oldie, you will get much more than £10-worth of fun and use out of it. It is pleasant to use; the instructions on screen almost make the (not very substantial, as far as I remember it) manual unnecessary. You can, by the way, use "64 Diary" for labelling, though it may take a little effort to get the printer set so that it is working in complete harmony with the program.

How does "64 Diary" compare with **Superbase**? They are not in the same league. **Superbase 64** costs over twice as much and is too powerful for the modest requirements of many 64 owners.

At £9.95 you should snap up Handic's "64 Diary" whilst it is still available. For the newcomer to computing it is an inexpensive and painless introduction to databases.

P.M.

Super 64 Librarian

Andy Eskelson reviews one program with a no-nonse approach to indexing ...

If you have a large collection of programs spread across many disks then you will probably thought that it would be a good idea to index them somehow.

Free Spirit Software have come up with a nice simple utility that in common with other programs by Free Spirit are no-nonsense and fully functional. The facilities that you get with this software are extensive and very well presented.

Designed for the C64 and the C128, the program also includes a boot program that will detect the machine that you are using and load the correct version. However, there is a slight restriction in the number of disks in any file, and that is limited by memory and also by your patience.

The program is very simple and very easy to use. In fact it makes life very easy indeed as it will directly read the directory from disk and enter it into the datafile. Once read, the user is invited to enter a few comments, up to a max of 55 characters against each program file. This is useful to note the SYS address of a machine code program if required. The program will also sort them into alphabetical order. The file is divided up into 16 categories. These are accessed by using the numbers 0-9 and the letters A-F. You can edit the meaning of the default categories to suit your own needs. This system helps reduce the search time greatly, as very often you will know that you have a useful disk utility somewhere. In other words, you can go straight to the disk utility category and search from there.

You may create a file, which is the main store into which you will put the directories of the various disks. Once you have created the file you can then Input a new disk, View files, or Find (search) for a program. Wild cards are NOT supported, but the search is not fixed. By entering ' WORD ' as the search data you would get Wordcraft, Wordprocessor, Wordmate etc in response. You can save the file and exit from the program, load a file, and get help and set up the screen colors.

As always it is very hard to fault Free Spirit Software. I have only found one slight bug in the software and that is so trivial that it would not normally even been spotted. If you keep pressing return and get the message "try again" this will scroll the menu off the screen in C128 mode. However this would not normally happen. The program is very easy to use and it is also very useful what more can I say, but well done again free Spirit!

A.E.

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'Coktel Visions'...

Paul Boughton travels to France to meet the creators of saucy software ...

French software house Coktel Vision — best known in this country for the exotic/erotic arcade adventure Emmanuelle, released on its Tomahawk sister label — has unveiled its game plan to capture a bigger slice of the UK market.

The Line Up

Releases lined-up for this autumn include European Space Shuttle, a 3D simulation produced in co-operation with the European Space Agency, which involves either planning and carrying out a mission to launch satellites or setting up an orbital space station.

Next is The Legend of Djel, a fantasy action adventure set in the plague and famine ridden kingdom of magician Djel. The game play involves making gold, potions and confronting evil sorcerors. The action ranges over 30 screens.

Further down the line is Inferno, involving the explits of a hammer-weilding punk who battles monsters who take the form of warped signs of the zodiac.

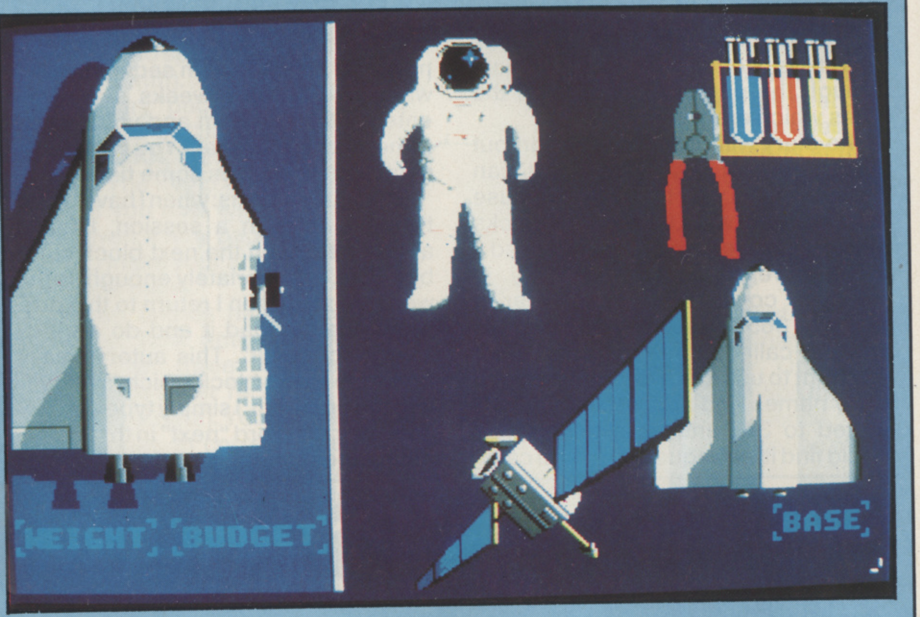
But the first of the new games to see the light of day will be African Raiders, a Buggy Boy-style race across the desert of North Africa.

The Future

Next year should also see the Coktel Vision's first computer roleplaying game. The first project will be based on the best-selling series of French space fantasy roleplaying books Empire Galactique, written by Francois Nedelec, who is a project manager for the company.

Coktel Vision has primarily been involved in educational software, which is far more popular in France than the UK. But they have now stopped producing 8-bit games, despite the popularity of the Amstrad in its home market, to concentrate on 16-bit and PC product.

Roland Oskian, boss of the Paris-based company, said: "We develop first on the PC — even for arcade action games — then the ST and Amiga." He predicts a big future for PC games. "I think the PC is slowly becoming a good machine for games," he added.



Coktel Vision are also now working on low price hardware addition for the PC which will drastically improve the machine's sound. "I think we can reach the same quality on PC as the Amiga and ST," he says.

P.B.

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Conversion

Peter McDonald gets prompted by a computer — hater creates a program to turn kilos to pounds, gallons to litres and much more conversion work.

My wife affects a lofty disdain for computers. To complete a questionnaire she had to express her weight in kilograms. "Now," she said, "If your toy could tell me how many pounds in a kilogram, it might begin to justify its existence."

This episode persuaded me that it would be handy to have a program which would tackle all the conversions listed in the tables: kilometres and miles; centimetres and inches; kilograms and pounds; U.K. tons and tonnes; hectares and acres; U.K. gallons and litres.

These divided themselves conveniently into length, weight, area and volume. So the first task would be to give the user a choice of these categories; having made his choice, he would be sent off on a GOSUB which was appropriate to the category. Then he would be allowed a choice within that category...e.g.kilometres into miles, or miles into kilometres, or centimetres into inches, or inches into centimetres. Another series of GOSUBS would be needed to cover all the possibilities.

And after the answer had been given, the user should be asked if he wished to do another conversion, and, if so, whether he wanted to use the same section again.

> ***"Like all the GOSUBS which are used to define the variables, it consists of one line only, ending in RETURN."***

I roughed out a program on those lines. It worked perfectly well, but the listing covered nearly two pages of A-4 paper, and occupied 14 blocks on the disk. I was sure that it could be greatly reduced. The final version (which is listed with this article) uses only 10 blocks, and it works just as effectively. What is more, the print-out of the listing fitted comfortably on one page.

How was this achieved? Looking at the print-out of the first program revealed a certain amount of repetition. Could this be avoided?

My first improvement was to write what is now LINE 6000 and make it the beginning of a GOSUB. This is in the form of a question but it uses two variables....A$ and B$. Provided I made sure that the meaning of these was correctly stated, the sentence would say what I wanted. The meaning assigned to these two variables is stated in the series of GOSUB, of which GOSUB 2080 is an example. Like all the GOSUBS which are used to define the variables, it consists of one line only, ending in RETURN. It also contains another variable:R. This is a numeric variable and on each of these one-line GOSUBS, R is the multiplication factor: that is to say, it is the amount by which the number of units to be coverted (kilometres, kilograms, tonnes, etc) has to be multiplied in order to convert it into the other units (e.g. miles, pounds, U.K.tons). In short it represents the proportion between A$ and B$.

Another set of repetitions in the original program came in INPUTS. These were employed to ask about the options in the menus and to enquire how many units (in each subsection) you wished to convert. Originally the INPUT dealing with the menus was "CHOICE?", and the one dealing with the number of units simply said "HOW MANY KILOMETRES" or whatever it was. Once I had decided to use the alpha-numeric variables A$ and B$ for the names of the units, I realised that all the INPUTS were in fact asking for a number of units. So if I changed both sets of questions. This meant that instead of typing out the INPUTS more than a dozen times through the program, I could use one GOSUB (7000).

Sometimes it is easier to follow the method by tracing one's way through a typical example. So here goes.

When the program is RUN, FNC(X) is defined (LINE 10) as meaning "40-(LEN(P$/2". Well, if you have not already met this formula, it may not be immediately obvious that it is a device for centering a phrase on the screen. But that is what it is. (If you require a more detailed explanation, see my 'On the Menu' in CCI for January, 1989.)

LINE 5000 contains the GOSUB. This says, in effect, PRINT the phrase represented by P$, but indent it by the number of spaces represented by FNC(X), and then RETURN to the LINE you left when you went to 5000. A glance at the listing shows that the words P$= occur at the beginning of many lines (e.g. 30; 90;100;110, etc) and each of the phrases representing P$ is followed by GOSUB 5000.

Having arranged the centering routine, the program first defines P$ as meaning: "YOU CAN CONVERT---- LENGTH (1); WEIGHT (2); AREA(3); OR VOLUME (4)" (LINE 30). LINE 40 puts GOSUB 5000 into operation. That centers the phrase, at the top of the screen. Before the user has time to respond to that, the RETURN on LINE 5000 sends the program back to LINE 40, where a COLOR instruction is given before putting GOSUB 7000 (the INPUT routine) into operation. This puts the word "NUMBER", followed by a question-mark, on the screen, immediately below the line giving the options and their numbers.

The number which is INPUT id designated "C". After completing GOSUB 7000, the program returns to LINE 40. And once the number (C) has been typed in, the command ON C GOSUB,80,2000,3000,4000 is carried out.

Let us suppose you typed "1" (LENGTH) as the response to "NUMBER". Since that is the first of the four numbers listed, the program uses the first of the GOSUBS listed after ON C GOSUB. (If you had typed "2" instead, the second GOSUB....2000...would have come into operation.)

cont. on next page

So have a look at GOSUB 80. By choosing 1, you chose LENGTH. GOSUB 80, then, clears the screen and then sets out the LENGTH menu. Line 130 asks you to indicate a choice by typing 1,2,3, or 4. But before you have time to act, GOSUB 7000 has been called in aid, and is again asking for your number (i.e. the option selected). The number, when typed, will represent C. Let us say you choose "2" (i.e. miles into kilometres). The ON C command on LINE 140 will carry out GOSUB 1010. This clears the screen, defines A$ as "MILES", B$ as "KILOMETRES", and R as 1.609. Then it obeys the command to GOSUB 6000.

LINE 6000 orders the computer to print on screen, beginning (TAB(15)) 15 characters from the left-hand margin:

"HOW MANY ";A$;" ARE TO BE CONVERTED INTO ";B;" ?" Because of the way GOSUB 1010 defines A$ and B$, the LINE will read:

"HOW MANY MILES ARE TO BE CONVERTED INTO KILOMETRES?"

GOSUB 7000 is immediately brought into play so that the INPUT can ask for the number. The RETURN at the end of LINE 7020 sends the program back to LINE 6010, where B is defined as (C★R). Let us imagine that in this case you typed in "10" as the answer to the INPUT. B would therefore equal C (i.e. 10) multiplied by R (1.609). This gives 16.09. So B (in this case) is 16.09. LINE 6020 prints the answer, with the figure, B, coming right at the end. The PROGRAM then RETURNS to LINE 1010; that in turn RETURNS to LINE 140 (which is the one which sent us to GOSUB 6000) and LINE 140 sends us to GOSUB 8000. This is the routine which asks about repeating. If we answer "N", we are sent to LINE 50, which clears the screen, prints THANK YOU!: enjoys a SLEEP of 3, clears the screen, returns it to its original colour, and then ENDs the program.

If the answer "Y", we are asked if we want the same section. If the answer is again "Y", the program returns to line 140 which simply says GOTO 80...the start of then LENGTH section. Otherwise, the program will RUN to LINE 8040, which clears the screen and then goes to LINE 10....to begin the program again.

You may wish to add facilities to this program (e.g. by converting pounds to stones, and [i]vice versa[r]). When you wish to SAVE the amended version, all you need do is type GOTO 9999, and the amended program will automatically replace the earlier one.

One advantage to be gained from typing out and saving this program is that, human nature being what it is, you can then be absolutely certain your spouse will never ask you if your computer can convert kilograms into pounds.

P.M.

```
READY.

10 SCNCLR: COLOR 5,2: COLOR 6,1:DEF FNC(X)=40-(LEN(P$)/2)
20 REM CONVERSION PROGRAM---COPYRIGHT PETER MCDONALD (1988)
30 P$="YOU CAN CONVERT---LENGTH (1); WEIGHT (2); AREA (3); OR VOLUME (4)"
40 GOSUB 5000:COLOR 5,6: GOSUB 7000:ON C GOSUB 80,2000,3000,4000
50 SCNCLR:P$="THANK YOU!": GOSUB 5000:SLEEP 3:SCNCLR: COLOR 6,1:END
80 SCNCLR:P$="YOU CAN CONVERT:":GOSUB 5000
90 P$="KILOMETRES INTO MILES.........(1)":GOSUB 5000
100 P$="MILES INTO KILOMETRES.........(2)":GOSUB 5000
110 P$="CENTIMETRES INTO INCHES.......(3)":GOSUB 5000
120 P$="INCHES INTO CENTIMETRES.......(4)":GOSUB 5000
130 COLOR 5,3:P$="INDICATE CHOICE BY TYPING:1,2,3 OR 4":GOSUB 5000
140 GOSUB 7000:COLOR 5,6:ON C GOSUB 1000,1010,1020,1030:GOSUB 8000:GOTO 80
1000 SCNCLR:A$="KILOMETRES":B$="MILES":R=0.621:GOSUB 6000:RETURN
1010 SCNCLR:A$="MILES":B$="KILOMETRES":R=1.609:GOSUB 6000:RETURN
1020 SCNCLR:A$="CENTIMETRES":B$="INCHES":R=0.394:GOSUB 6000:RETURN
1030 SCNCLR:A$="INCHES":B$="CENTIMETRES":R=2.54:GOSUB 6000:RETURN
2000 SCNCLR:P$="YOU CAN CONVERT:":GOSUB 5000
2010 P$="KILOGRAMS INTO POUNDS.........(1)":GOSUB 5000
2020 P$="POUNDS INTO KILOGRAMS.........(2)":GOSUB 5000
2030 P$="U.K. TONS INTO TONNES.........(3)":GOSUB 5000
2040 P$="TONNES INTO U.K. TONS.........(4)":GOSUB 5000
2050 COLOR 5,3:P$="INDICATE CHOICE BY TYPING:1,2,3 OR 4":GOSUB 5000
2060 GOSUB 7000:COLOR 5,6: ON C GOSUB 2080,2090,2100,2110:GOSUB 8000:GOTO 2000
2080 SCNCLR:A$="KILOGRAMS":B$="POUNDS":R=2.205:GOSUB 6000:RETURN
2090 SCNCLR:A$="POUNDS":B$="KILOGRAMS":R=0.454:GOSUB 6000:RETURN
2100 SCNCLR:A$="TONNES":B$="U.K. TONS":R=0.984:GOSUB 6000:RETURN
2110 SCNCLR:A$="U.K. TONS":B$="TONNES":R=1.016:GOSUB 6000:RETURN
3000 SCNCLR:P$="YOU CAN CONVERT:":GOSUB 5000
3010 P$="HECTARES INTO ACRES..........(1)":GOSUB 5000
3020 P$="ACRES INTO HECTARES..........(2)":GOSUB 5000
3030 COLOR 5,3:P$="INDICATE CHOICE BY TYPING:1 OR 2":GOSUB 5000
3040 GOSUB 7000:COLOR 5,6:ON C GOSUB 3070,3080:GOSUB 8000:GOTO 3000
```

Conversion

```
3070 SCNCLR:A$="HECTARES":B$="ACRES":R=2.471:GOSUB 6000:RETURN
3080 SCNCLR:A$="ACRES":B$="HECTARES":R=0.405:GOSUB 6000:RETURN
4000 SCNCLR:P$="YOU CAN CONVERT:":GOSUB 5000
4010 P$="U.K.GALLONS INTO LITRES.......(1)":GOSUB 5000
4020 P$="LITRES INTO U.K.GALLONS.......(2)":GOSUB 5000
4030 COLOR 5,3:P$="INDICATE CHOICE BY TYPING:1 OR 2":GOSUB 5000
4040 GOSUB 7000:COLOR 5,6:ON C GOSUB 4070,4080:GOSUB 8000:GOTO 4000
4070 SCNCLR:A$="U.K.GALLONS":B$="LITRES":R=4.546:GOSUB 6000:RETURN
4080 SCNCLR:A$="LITRES":B$="U.K.GALLONS":R=0.220:GOSUB 6000:RETURN
5000 PRINT TAB(FNC(X));P$:PRINT:RETURN
6000 PRINT TAB(15)"HOW MANY ";A$;" ARE TO BE CONVERTED INTO ";B$;" ?"
6010 GOSUB 7000:B=(C*R):COLOR 5,6
6020 SCNCLR:PRINT TAB(19)"THE NUMBER OF ";B$;" IN";C;A$;" = ";B:RETURN
7000 COLOR 5,8
7010 :   PRINT:PRINT TAB(35);
7020 :   INPUT"NUMBER";C:RETURN
8000 PRINT:PRINT:PRINT:PRINT:PRINT:COLOR 5,8:P$="REPEAT (Y/N)?":GOSUB 5000
8010 GETKEY B$:IF B$="N" THEN GOTO 50
8020 PRINT:PRINT:PRINT:PRINT:P$="THIS SECTION (Y/N)?":GOSUB 5000
8030 GETKEY Q$:IF Q$= "Y" THEN RETURN
8040 SCNCLR:GOTO 10
9999 DSAVE"@CONVERSION"
```

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Epson GQ-3500 Laser Printer

With the availability of more and more softare for the production of 'professional' documentation, eg. Desktop Publishing and Forms programs, the dot matrix printer becomes less and less suitable for the task. One answer is to turn to laser printers and the Epson the well known printer manufacturer has just launched its first printer in this field.

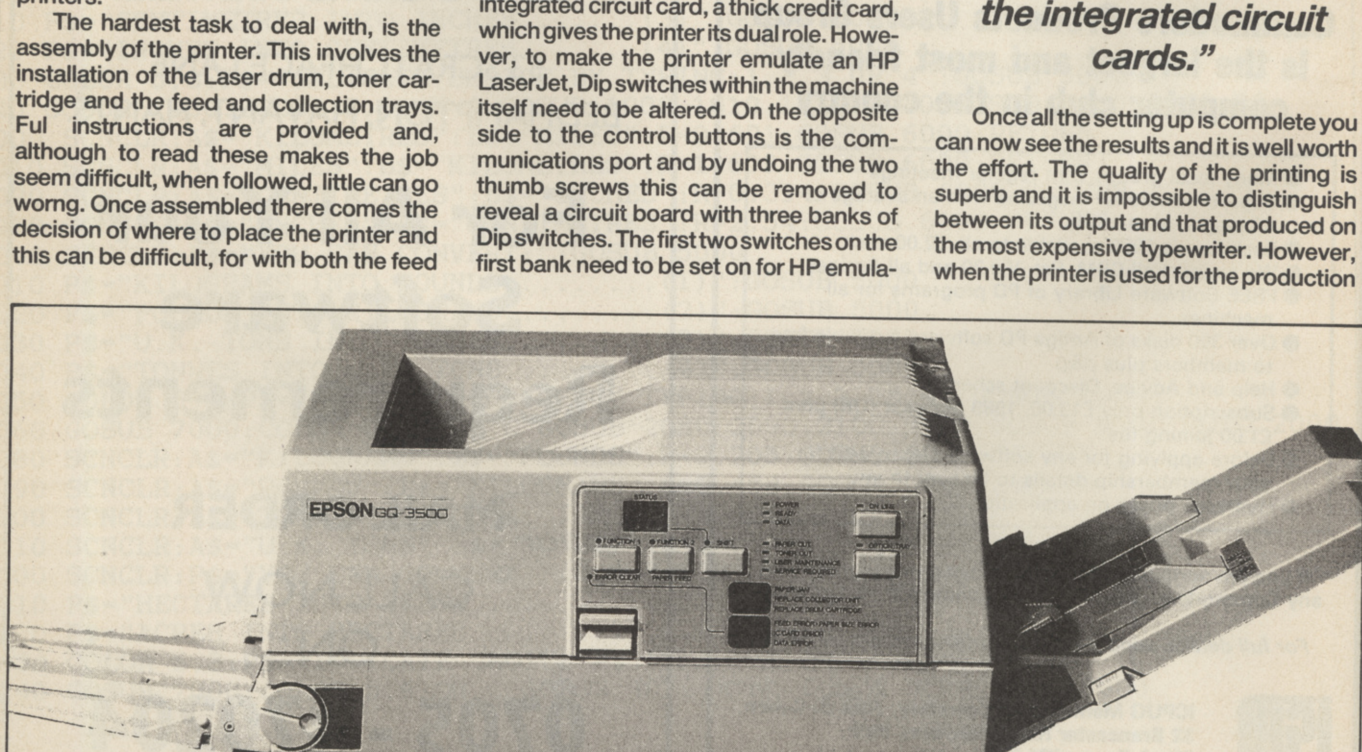
The GQ-3500 is capable of meeting the most stringent requirements of the software available today. To ensure this, the package comes complete with emulation cards so that it can act as a Hewlett Packard LaserJet. This will then give you more chance of compatibility with your software's print drivers. In addition it will also emulate the Epson LQ range of printers.

The hardest task to deal with, is the assembly of the printer. This involves the installation of the Laser drum, toner cartridge and the feed and collection trays. Ful instructions are provided and, although to read these makes the job seem difficult, when followed, little can go worng. Once assembled there comes the decision of where to place the printer and this can be difficult, for with both the feed and collection trays fitted the 'footprint' of the printer is probably bigger than that of your computer. However, this is common to all laser printers and therefore this printer should not be criticised for it. To alleviate the problem the printer does offer two collection methods. A dial on the edge of the printer allows selection between the aforementioned tray and a built-in collector on top of the printer. My only criticism of the printer is that I can see no purpose in the side collection tray. To do so results in the printed documents being left in reverse order, with the last page on top. The in built collector on top, does the opposite, with documents being presented in the correct sequence.

Just above the feed tray are two slots, one of which is used for the insertion of the integrated circuit card, a thick credit card, which gives the printer its dual role. However, to make the printer emulate an HP LaserJet, Dip switches within the machine itself need to be altered. On the opposite side to the control buttons is the communications port and by undoing the two thumb screws this can be removed to reveal a circuit board with three banks of Dip switches. The first two switches on the first bank need to be set on for HP emulation mode, the rest are concerned with papaer sizes and language sets and should only need to be altered under rare circumstances. The second card slot is used for the insertion of other integrated circuit cards which provide additional character fonts. The printer comes complete with a parallel interface as standard, although it can be changed using the Dip switches, for serial communications.

> ***"Printing in three 'on-board' fonts is possible, Courier, EDP and Modern, but the range can be extended by use of the integrated circuit cards."***

Once all the setting up is complete you can now see the results and it is well worth the effort. The quality of the printing is superb and it is impossible to distinguish between its output and that produced on the most expensive typewriter. However, when the printer is used for the production



continued

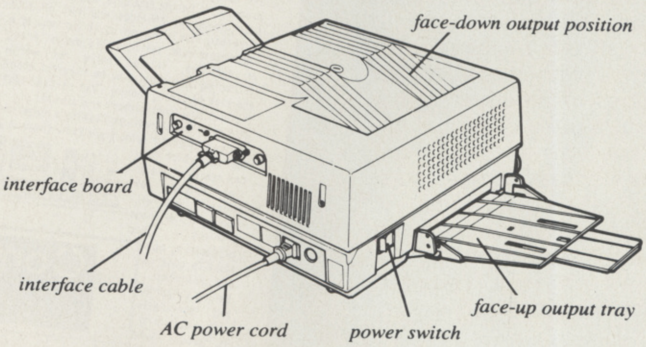
of DTP or business graphics the finish is immaculate. There is just one drawback, printing of complex graphics can take some time as the printer needs to assemble the required information in its own memory. Due to this it can take some minutes to produce a full sheet of graphic details. Some of the problem is due to the amount of memory it requires to store all the printing information. The printer comes with 512k installed and this will hold approximately half an A4 page of graphics, a 2meg upgrade is available which will help to solve this problem. However, I can assure you it is well worth the wait to see your own designs faithfully reproduced on paper. To aid in the printing of graphics, or indeed wide reports, the printer can produce documents in two orientation modes, either portrait (long and narrow) or landscape (thin and wide). In text mode this will allow pages of up to 132 characters wide in landscape and 80 in portrait. Printing in three 'on-board' fonts is possible, Courier, EDP and Modern, but the range can be extended by use of the integrated circuit cards. Of course, fonts can also be set up by software and these will depend on the package the printer is being used in conjunction with.

Included with the printer are a number of manuals explaining different aspects of the printer, from installation through to daily maintenance and a detailed reference guide. Two ring binders are supplied to hold all these manuals as well as the various reference cards. Included in the pack is a postcard with which you can request, free of charge, a copy of another manual for the 'Programming of the GQ-3500'.

What does all this cost, as can be expected it is not cheap. The printer itself, including the Hewlett Packard LaserJet emulations cards, costs £1600 plus VAT. The memory expansion costs £200 if purchased with the printer or £400 plus VAT if bought afterwards. Normally the only things that would then need to be bought would be paper and the odd ribbon. However, with a laser printer the consumables are more costly. The toner cartridge costs £25 and needs changing approxiamtely every 1500 pages. Next comes the collector, which collects excess toner after printing, this lasts 10000 pages and costs £98. Lastly the laser drum also needs changing and costs £180, but in this case it will last for approcimately 20000 pages. All things being considered the cost per page is approximately 4p which does not seem excessive, especially when measured against the quality of print available. Added to this is the professional finish that it will allow you to give your documents.

It all depends on what the printer is to be used for, that will decide whether or not all this is too costly, but if you are moving into the area of producing quality documents, the use of a laser printer is really your only option. The Epson GQ-3500 will fill this requirement admirably.

L.K.



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MOON RECORDS

Fleet Street Editor v3.0

Len Keighley rolls up his sleeves and goes to work on an upgrade to a well-established DTP package ...

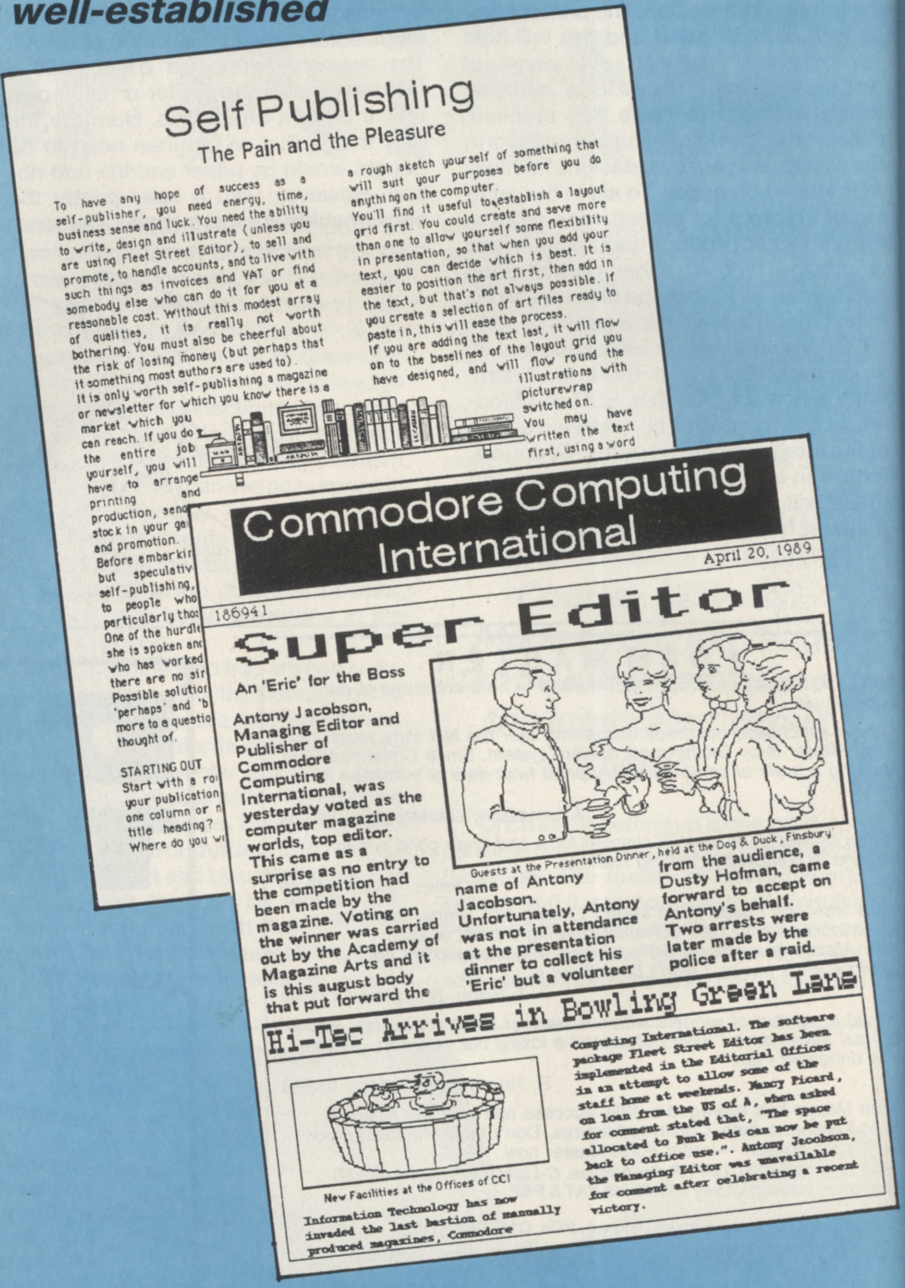
When Desk Top Publishing began to appear, approximately three years ago, one of the first packages available was Fleet Street Editor from Mirrorsoft. This month we review the latest issue of the package, Version 3.0, for use on the Commodore PC.

The function of the package is to provide the user with the ability to create a number of different format documents with a professional, quality finish. Fleet Street Editor can produce newsletters, catalogues, flyers, menus, leaflets and forms. All these are known as Publications and they are the work areas used by the software, in which your required documents are produced.

Layout

Initially the publication itself consists of the basic layout of the document. This can be as basic as a Blank Sheet or as complex as a form or column based newsletter, which may already include some form of graphics or Banner title. A number of these are provide by the package as standard and these can be added to or amended depending on your own requirements. A Newsletter can consist of up to four columns of text on a single sheet and an individual sheet can be split into top and bottom halfs. Each of these two halfs can then contain a different column layout.

> ***"The package supports various forms of file type, signified by the file extention."***



Self Publishing

The Pain and the Pleasure

To have any hope of success as a self-publisher, you need energy, time, business sense and luck. You need the ability to write, design and illustrate (unless you are using Fleet Street Editor), to sell and promote, to handle accounts, and to live with such things as invoices and VAT or find somebody else who can do it for you at a reasonable cost. Without this modest array of qualities, it is really not worth bothering. You must also be cheerful about the risk of losing money (but perhaps that it something most authors are used to).
It is only worth self-publishing a magazine or newsletter for which you know there is a market which you can reach. If you do the entire job yourself, you will have to arrange printing and
production, send
stock in your ge
and promotion.
Before embarkir
but speculativ
self-publishing,
to people who
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One of the hurdl
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'perhaps' and 'b
more to a questio
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STARTING OUT
Start with a ro
your publication
one column or n
title heading?
Where do you w

a rough sketch yourself of something that will suit your purposes before you do anything on the computer.
You'll find it useful to establish a layout grid first. You could create and save more than one to allow yourself some flexibility in presentation, so that when you add your text, you can decide which is best. It is easier to position the art first, then add in the text, but that's not always possible. If you create a selection of art files ready to paste in, this will ease the process.
If you are adding the text last, it will flow on to the baselines of the layout grid you have designed, and will flow round the illustrations with picturewrap switched on.
You may have written the text first, using a word

Commodore Computing International

April 20, 1989

186941

Super Editor

An 'Eric' for the Boss

Antony Jacobson, Managing Editor and Publisher of Commodore Computing International, was yesterday voted as the computer magazine worlds, top editor. This came as a surprise as no entry to the competition had been made by the magazine. Voting on the winner was carried out by the Academy of Magazine Arts and it is this august body that put forward the name of Antony Jacobson. Unfortunately, Antony was not in attendance at the presentation dinner to collect his 'Eric' but a volunteer from the audience, a Dusty Hofman, came forward to accept on Antony's behalf. Two arrests were later made by the police after a raid.

Guests at the Presentation Dinner, held at the Dog & Duck, Finsbury

Hi-Tec Arrives in Bowling Green Lane

New Facilities at the Offices of CCI

Information Technology has now invaded the last bastion of manually produced magazines, Commodore Computing International. The software package Fleet Street Editor has been implemented in the Editorial Offices in an attempt to allow some of the staff home at weekends. Nancy Picard, on loan from the US of A, when asked for comment stated that, "The space allocated to Bunk Beds can now be put back to office use.". Antony Jacobson, the Managing Editor was unavailable for comment after celebrating a recent victory.

Into the publication document are 'poured' text and graphic items. Each of these can be prepared in a separate environment to Fleet Street Editor and imported as required. The package supports various forms of file type, signified by the file extention. For graphics, the software is capable of reading graphics produced by PC PaintPlus, PC Paintbrush, MS Windows Paint, Logipaint, Publishers Paint and MAC Paint V1.5. In addition images can be scanned or obtained from the samples supplied with the package. All are treated in the same way by retrieving into the work area the appropriate graphic file, selecting the part of the image required and saving that as a Fleet Street Editor .ART file.

Text can also be imported from a number of other software packages, Wordstar, Wordperfect, a WANG PC, Multimate, MS Word, PFS First Choice/Write/Professional Write, DCA and ASCII formats. It is advisable to prepare your text outside of Fleet Street Editor as it is a text processor not a word processor and therefore does not provide all of the facilities of that type of package.

Text

Once imported into the publication file, the text can be manipulated in terms of the position on the page and the font used. The fonts available to some extent depend on the printer you have available but those used on dot-matrix printers can also be utilised by Laser-printers. The position of the text is moved about on the page in two ways. The usual cut and paste facilities are available to move round within a text item. In addition the software provides 'Baseline' facilities which when switched on show where each line of the text will be positioned on the page. These can then be manipulated as required by selecting the adjustment type from the drop down menu. The 'Baselines' can then be moved up or down, stretched or shortened to the requirements of your document. Movement is made by way of the handles on the baseline that appear when the adjustment type is selected.

> ***"The fonts available to some extent depend on the printer you have available but those used on dot-matrix printers can also be utilised by Laser-printers."***

The pictures imported to the publication can also be manipulated. The orientation can be changed to give the opposite image to the original, (eg left to right or top to bottom). They can also be re-sized to fit in with the gaps that you have available in your publication. The package also contains a 'Picturewrap' facility which results in the text moulding itself to the outline of the picture. Graphics also cover some forms of text as these can be entered and manipulated as graphics. This is useful for producing banner headlines etc.

To extend the fonts available, Fleet Street Editor is supplied with the Bitstream Fontware Installation Kit. An enormous range of different font styles is available and a number are supplied with the package. These can be loaded into the system as required. Unfortunately these can only be used with HP Laserjet printers or emulators and systems that have a hard-disk unit installed. Another drawback is that each individual font takes approximately thirty minutes to load. Therefore to load all the different sizes available for the Charter Roman font, supplied with the package, can take two and half hours.

The package comes with a full manual and the software on both 5.25 and 3.5 inch disk formats. The manual comes with a tutorial section and this is very straight forward to follow. In fact the package is very easy to use and very quick to produce the intended professional product. The complete package cost £189 and can be obtained in a bundled form with the Cameron Handy Scanner at about £345, unfortunately the scanner has not been available for review. ***L.K.***

Price: £189.00 Contact: 1 Ewin Road, 118 Southwalk, London SE1 0SW. Tel. 928-1454.

RF522C — 5 1/4"Disk Drive

Len Keighley examines a smooth operator from Evesham

The majority of the PC user base in this country, if not the world, have the 5 1/4" disk drive as their main floppy storage device. This is slowly changing to the newer 3 1/2" format disks, now familiar to Amiga users, with the development of the Commodore PC1, IBM's PS2 and Amstrad's PPC. The use of the 3 1/2" format disks on a PC can cause some problems as some software may not yet be available on that format. In addition, most games software is supplied on the 5 1/4" media. However, this problem has now been alleviated for Commodore PC1 users with the arrival of a compatible external 5 1/4" drive.

The drive, produced by Evesham, has double density 48TPI format which gives 360K bytes of storage per disk and the access time, track to track, is 6mSec. When in use the drive is quiet and smooth in operation and takes approximately two minutes to format a complete disk.

> ***"The connection to the PC1 is via a 23 pin 'D' connector into the external drive connector on the PC itself."***

The connection to the PC1 is via a 23 pin 'D' connector into the external drive connector on the PC itself. The drive is supplied with the required connector and a two foot cable, which may be a little short. No power cable is required as this is obtained from the PC itself via the same cable. The drive is very compact with dimensions of 1 1/2" T 5 1/2" T 10 1/2" which makes it the size of a medium sized book and is colour coordinated with the PC1. The cost of the drive is £100 which makes it an economic addition to your PC1 setup. It will be especially useful to those users who wish to transfer files from one format disk to another.

L.K.

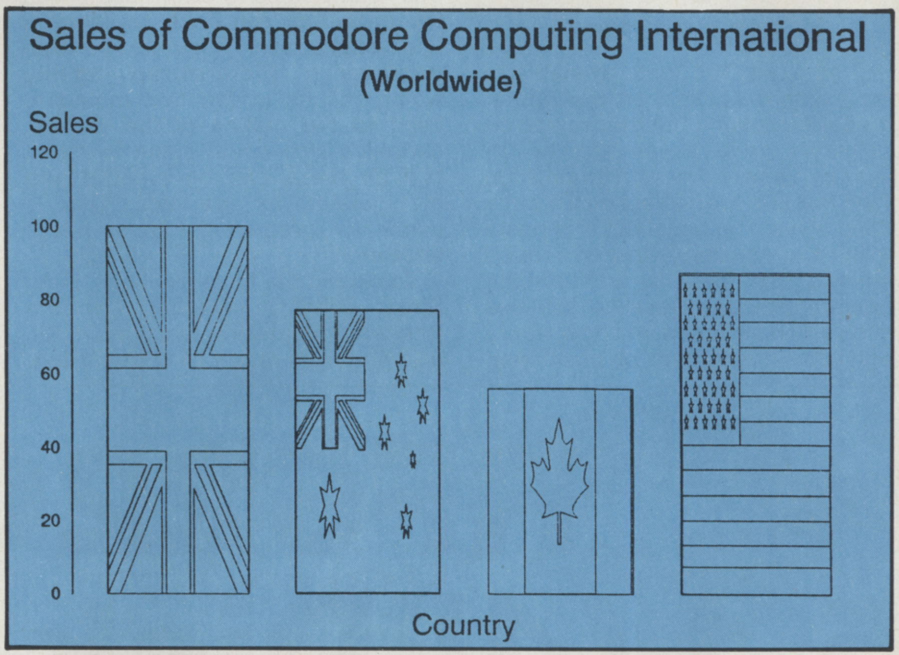
Price: £100.00. Contact: Evesham Micros, Ltd., 63 Bridge Street, Evesham, Works, WR11 4SF. Tel. (0386) 765500

Lotus

Len Keighley reviews a wide range of Lotus software designed to meet every PC owner's needs ...

Since the take-off of the PC market in the early eighties there has been one company that has become synonymous with software for that market, that company is LOTUS. Lotus sold its first package, 123, in January of 1983 and that product has become the world's most popular piece of software. The 123 package has in fact, become the standard by which other spreadsheet packages are measured. The following year Lotus launched a second product which further developed the facilities of 123, and Symphony has now become the second most popular piece of software in the world.

That however, was not the end of it and Lotus have continued to develop software products and information services. With this in mind we now present a review of the major Lotus products including the two already mentioned.



123

This package has been widely adopted as an industry standard Spreadsheet, but it is in fact more than just that, for it includes a database and a graphics package as well. Once loaded, the commands are all abbreviated to a single letter, or selection by moving the cursor to the required letter. A description of each function is displayed as the cursor moves over each letter. This method has in fact since been copied by a number of other spreadsheet suppliers. The spreadsheet consists of a 256 column by 8192 row cell grid, which provides over 2 million cells. This then makes it

Once satisfied with the calculations, the user can then convert the results, into a pictorial representation which is generally accepted to be the more easily understood view. Line-graphs, x-y graphs, scatter graphs, bar charts, stacked bar charts, pie charts and exploded pie charts can all be displayed on the screen in a short time. Details of the meaning of each entry can be added along with axis information and the areas in the pie and bar diagrams can be shaded to add emphasis to the differences. The pictures can then either be printed immediately or they can be saved and put through an additional program called Printgraph which produces a better quality finish to the diagram. All this can be done on a standard dot matrix printers. When used with more sophisticated and expensive printers the finished product is extremely professional.

Finally, the 123 package provides a database function that will allow the user to store up to 8191 records of up to 256 items of information per record. These entries can then be sorted into primary and secondary categories in ascending and descending order. Entries can be selected for further manipulation which can include statistical analysis for the mean, standard deviation and variance.

Symphony

Lotus built on the integration of the 123 product by adopting the maxim that 'if you handle all of your job, so should your software', and the Symphony product was the result. The Spreadsheet, Graphics and Database facilities of 123 were expanded to include Wordprocessor and Communications software. The most recent release has included enhancements suggested by customers, which include an integrated spelling checker, a text outliner to help organise your thoughts and structure the documents you produce more efficiently, and new communications features.

Symphony also has a number of special features. A Macro facility is provided so that repeated series of key depressions can be recalled, for use throughout your work. For example a common phrase or client name can be inserted in your worksheet, at the touch of a key. A 'command language' is also included which allows the user to design their own menus.

Symphony's biggest feature is that all of its functions can be used in a single worksheet. A spreadsheet can be inserted into a memo to help emphasis your point and allow the figures shown in the memo to be changed as circumstances alter. Entries on the database can be inserted into a wordprocessor document to produce mailshot form letters.

Lotus

Agenda

Ideas processors are relatively new to the market and, as you would expect, Lotus are one of the leaders in the field. Agenda is the name given to the product and it is linked to the workings of the time/system philosophy of which the organiser wallet has become quite a regular sight in the office environment.

Agenda is a database package that allows the user to enter items of text information under a category title and have these automatically linked under other related categories. A single database can consist of any number of categories; some database examples are Home, Work, Car, House etc. Notes can also be entered under either an item or a category and these allow a more comprehensive explanation of the entry. They do not have any effect on the linkage.

A category can be a piece of text, from a single word to a short sentence. Once established, any text subsequently entered that includes the category name as text, will be linked to that category, as well as the one it is typed under. An example of this would be, to have the following five categories set up, Anna, Sale Strategy, Calls, Bill and High. The entering of the item 'Call Anna about sales strategy' would then result in the item being automatically related to all but the 'Bill' category. Any amendments to the item content would undo and redo the linkages as necessary. A hierachy of categories can be established either before any items are entered, by creating the required categories, or by Agenda itself, as they are entered during the item creation. If your needs change during the life of the database items can be linked to other categories by creating columns of category values on each item.

Dates can also be assigned to Items and these too can be text entered as well as actual dates, i.e. Next Tuesday, Today or 11/2/89. All will be converted automatically, if necessary, to the physical date.

Each Agenda database can be viewed in a number of different ways by entering the category by which you require the database to be listed. It is then a simple task to select the list of those available the one you require.

Freelance Plus

Freelance Plus is the Lotus Desk Top Publishing product and as with all their products it has been developed with the business user in mind. The Freelance package allows the user to put together reports, presentations and desktop documents from an extensive library of standard pictures, as well as develop and load their own unique details. The library is split into Symbols, Maps, Charts, Logos and Text, all of which can be amalgamated on to a single document. The library contains an incredible 500 pictures and the forms of these can be rearranged by use of the facilities in the package. In addition, maps of various countries can be obtained to increase the numbers available even more. User pictures can be created by means of the incorporated freehand drawing facility or be scanned directly into a file ready for use by the package.

The files output from 123 and Symphony can be used as input to Freelance to provide an even more professional finish to your bulletins and schedules. The 123 and Symphony files can be linked to Freelance Plus chart files so that if any changes have been made using the spreadsheet software, the chart is automatically updated when Freelance next access it. Forms can also be designed using the package as well as the usual Desk Top Publishing feature, signs.

Two types of presentation format are supplied as part of the package. The 'Portfolio' format allows you to create a presentation by input the sequence of diagrams, pictures, charts etc, with up to 100 entries available. These can then be printed off as a group, for repeated presentations or as handouts to presentation attendees. The 'Screen Show' format carries out the same function as 'Portfolio' for the screen environment. There are two additional features in 'Screen Show' that make use of the additional facilities of the screen. The first, is the length of time that a picture is displayed on the screen and the second concerns the way in which one picture replaces another.

The package is relatively simple to use and the basics can be learned in a couple of hours.

Other Lotus Products

These then are the main products in the Lotus range, however, they are supported by a whole host of add on products.

Graphwriter II interfaces with 123 or Symphony, to help the user to present the information held in the spreadsheets, as a series of charts. The software allows the chart to be updated when the data changes, without the need to redraw the chart from scratch again. This is aimed at the user that does not require the sophistication of Freelance.

HAL is a companion to 123 which enhances its capabilities and adds new functionality. HAL allows the user to execute a number of 123 steps and therefore provides them with the ability to think about what they require not how they are going to do it.

Metro provides accessories to your system that give a 'desktop' environment from which you can run other Lotus products. Examples of the functions available are a Calculator, an Appointment book, a Notepad, a Phone book and a Watch.

One of the nice Lotus touches in their software is the way in which they are used. They provide what can only be called a 'Common User Interface'. This means that the commands in each program are accessed in the same way. Thus providing an integrated package without the need to purchase all the elements at the same time. Another of these touches is apparent in the manuals provided with each product, and there are a number of these. The index to each gives references to all the manuals in the package, no searching for an item in each book. To make things even easier function key guides are supplied which fit round the function key block or across a strip of keys, depending or your keyboard layout. The use of the function keys for standard features, such as the comprehensive Help facility, is consistent across all of the products.

The Lotus product range continues to grow and they have announced a new product, to be delivered soon, called 'Magellan'. The function of the package is to aid the control of Hard Disk systems. Lotus state that the software will be able to search a 40 megabyte hard disk in about 2 seconds.

The cost of all these packages is not cheap, as you would expect, specifically the costs are: 123, £395; Symphony, £550; Freelance, £395; and Agenda, £315, all exclusive of VAT. However, one of the maxims of today is that you pay for what you get and with Lotus products this is some of the best software around.

L.K.

Contact: Lotus Development (U.K.) Ltd., Consort House, Victoria Street, Windsor, Berkshire SL4 1EXC.
Tel. (0753) 840281

Old Faithful

Mark Smiddy investigates the rise of the PC and asks how Commodore's stalwart offering fares

Nearly twenty years ago Commodore invented the world's first personal computer. It was based on a simple 8 bit CPU, designed by CMB technicians. Its successors now form the heart of the C64. The company called this world-leading first the Personal Electronic Transactor, or PET for short.

The idea caught on, and very soon several other companies decided they would get in on the act. The largest and most well known was the American based multi-national, IBM. They called their new machine the IBM PC. Even though those first PC's were in many respects inferior to the PETs of the day, IBM's stronghold and reputation with businesses worldwide ensured its success.

The original machines were based on Intel's 8088 series CPU. An 8 bit processor running at a miserly 4.77Mhz, which to be fair, seemed quite fast at the time. Later machines used more recent chips from the same Intel family, like the 80286 used in the PC AT, and more recently the 80386 32 bit CPU which actually rival the superb 68030 in terms of raw performance. Most importantly though, all these chips retain the same basic instruction set (or can emulate it) so they can all run the original PC DOS.

But there is a twist: PC DOS makes use of a small boot ROM to get to the metal of the machine. This ROM has a series of standard entry points for doing particular jobs. IBM do not regard the function of the ROM, or those entry points to be their property under act of copyright; so anyone who can duplicate its function on a 8088 based machine can in essence, quite legally produce an IBM compatible micro.

This fact has led to a barrage of 'clones'. IBM compatible micros appearing on the market.

The machine we reviewed was the PC-10-111. Commodores recently dropped the R.R.P. to £599 + VAT, with a monitor and printer included. The basic machine on offer comes with a single disk 5 1/4" drive, 640K RAM, monochrome (amber) monitor and MPS 1280 dot-matrix printer. Parallel, serial and mouse ports are built-in, as are three XT compatible expansion slots, MS-DOS and GWBASIC are supplied separately on disk. A mouse is not included.

Firstly, and almost as important as any of the electronics is the case; the hardware that protects the hardware.

In the PC10, this is a robust steel casing. With Commodore's design it is not necessary to have the monitor perched on top - a position, which although widely accepted, can give rise to neck strain.

The Commodore machine features an unobtrusive ni-cad for the real-time clock which charges while the machine is in use. Since ni-cad cells are fairly reliable this will probably never need any attention - unless the machine is left off for long periods.

The PC 10-111 is supplied as standard with a monochrome unit. It features a crude form of multi-sync. This means it can display the output from any of the standard IBM cards right up to EGA (64 colours) albeit in shades of amber. However, owners of 1804 monitors can plug the PC in straight away and get CGA colour.

Inside the case there is no sign of the familiar display adaptor usually nestling in an expansion slot. Instead, Commodore have used a specially designed custom chip to do all the work. But that is not all. The chip is so smart it can imitate:

MDA: 80 column text.

Hercules: MDA text plus hi-res graphics 720*348 monochrome.

CGA: 80 or 40 column text plus graphics 640*200 max in 2 colours.

Plantronics: As CGA but with more colours.

The advantage of this is almost anything will run on the PC 10 and you will not have to worry about needing the right display adaptor. The only disadvantage with this system is to switch between CGA and Hercules you have to flick some DIP switches located behind a little slot at the rear of the case. In business, few users will ever need anything better than Hercules. Most PC software packages recognize the display in use and configure themselves accordingly. Unfortunately, very few seem to have heard of Plantronics. In particular Chuck Yeagers Advanced Flight Trainer was convinced it was running under CGA.

The engine of the PC10 is an Intel 8088 CPU. This is a simple 8 bit chip as used in the original IBMs, however in the Commodore machine it can be made to run at twice its normal speed - over 9.5Mhz and that is fast.

The Commodore machines have three selectable speeds: 4.77Mhz, 8.00Mhz and 9.54Mhz. The reason for this is not entirel;y clear, although somer older software will not work properly unless run at the lower 4.77Mhz.

Changing speed is accomplished in one of two ratrher novel ways: Either using the Speed command from DOS, say in the startup AUTOEXEC.BAT or by using one of three key combinations at any time. CTRL + ALT + S, for instance selects slow mode, confirmed by a low beep from the internal speaker. Press D instead, and the machine switches to twice normal speed.

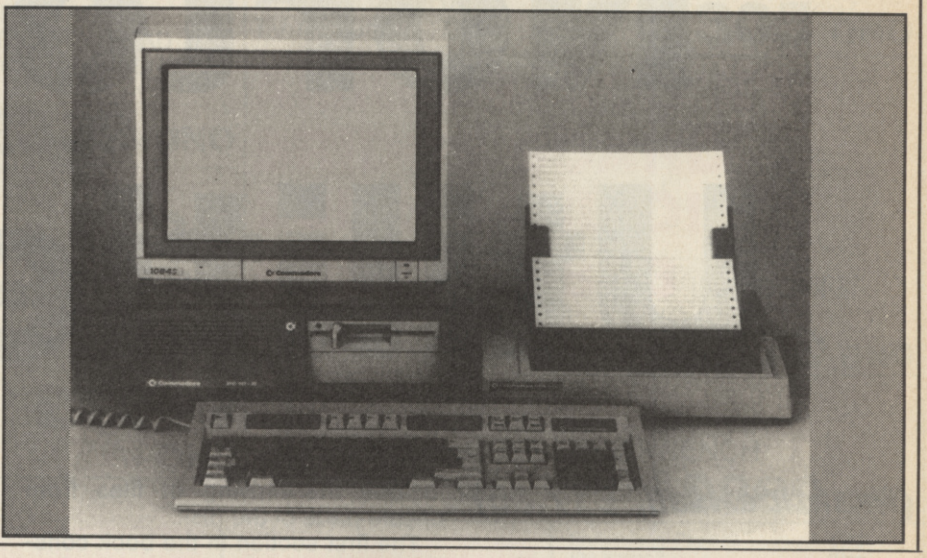
On the right of the case, when viewed from the front is a gaping hole filled only by some trailing wires. This is for the user to add either a second floppy disk drive or Commodores own 20Mb hard disk unit, the HD controller is built into the machine as supplied. Fitting either should not cause manyproblems and will only take an experienced person about 20-30 minutes.

Another option, the one we opted for was to fit a commercial "Hard Card" with more storage. This comprises ahard disk with a controller card andbacking plate. Fitting took no more than 20 minutes and the machine worked first time. The only problem being with this approach the HD busy light will not work, this is reserved for Commodore's own drive. Secondly, one of the slots is taken up. Interestingly enough, while shopping around for the test units ***CCI*** discovered that some suppliers are selling - knowingly or not - 30Mb hard cards with 20Mb drives attached.

Last but not least, a word about the manuals. Both the PC 10 and PC20 are supplied with three: MS-DOS users guide, GWBASIC programming and reference guide and an owners manual. None of these is particularly impressive, although the owners manual does provide some insight for programmers using the machine's custom video chips. Anyone familiar with MS-DOS should have little difficulty here, but beginners would be wise to consult one of the several comprehensive guides available.

With the set up described here - which costs under £750 plus VAT for 30Mb hard disk, CPU, mono monitor and printer, the average businessman - or anyone else - can enjoy the delights of a real business computer that feels like it is built to last.

M.S.



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Inside the Norton Utilities

(Prentice-Hall, £17.35)

When a software package becomes popular, its popularity is heralded by the publication of a number of books which provide further insights into the working of the product. These usually fall into the category of 'Get more out of..'. Not all of these books have the approval of the software authors, let alone their input. 'Inside the Norton Utilities' is an exception. Indeed the inventor of the software, Peter Norton, is pictured on the cover of the book with the author, Rob Krumm. In addition the Director of R&D at Peter Norton Computing is also pictured there and has helped in the writing of the book.

The Norton Utilities, for those of you who are unfamiliar, are a group of programs which help the PC user to get the most out of their machine. In fact they provide additional programs and commands that makes it simpler for the user to carry out functions not easily carried out, if available at all, in the operating system. They consist mainly of additional commands that help with file housekeeping on your PC. The ability to restore erased files and reorganise directories are only a small part of this. For hard disk users there are Menu construction facilities and preventative maintenance routines for use on the hard disk itself. These include the moving of files from unsafe parts of the disk.

The first section in the book consists of an introduction to the fundamental concepts of the PC computer and how storage is handled by the machine.

For new PC users, the second section of the book takes the time to explain the workings of the BAP (Batch) files that are found on most disks. Using additional Norton Utility programs these can be enhanced by providing the ability to create BAP files by way of a pseudo programming language.

The initial third of the book is spent on this topic, starting from the basic files present on the operating system load disk, ie AUTOEXEC etc. To sophisticated techniques which will provide the user with a log of all the activities that the computer has carried out that day. The section also includes details on how information can be sent to the printer and how to understand printer manuals.

The remainder of section three, is concerned with the placement of files on your storage devices, directory maintenance etc. It also describes the file search facilities of the Norton Utilities, which while primarily aimed at the Hard Disk user, still has some relevance for those using Floppy Disks. The fourth section then continues with more detailed descriptions of the ways in which files can be protected and directories sorted.

Survival Skills are covered in section 5 and have to do with the monitoring of performance and reliability of your storage media. Primarily, this is again in the area of the Hard Disk user, as the problems that are highlighted by the programs have more significance on those devices. The programs available from Norton are described in this section and these include the availability of a reorganisation which does not require the backup, reformat and restore sequence that the operating system provides and the huge amount of time this will take on a 32 megabyte hard disk.

The final section of the book consists of detailed descriptions of other Norton Computing products, Norton Commander, Norton Editor and the Norton Guides. None of these is technically part of the Norton Utilities product, but it does mean that you do not have to buy more books to read about those products.

This book is a good buy for the PC beginner and someone who wants to get further into using the PC, but needs help with its organisation and control. It is well thought out and presented and deserving of its support by the producers of the Norton Utilities.

L.K.

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WIN A PC-10!!!

CCI gives away loads of bumper prizes each month, and this month is no different. As Commodore makes its presence known in the MSDOS field, CCI will be there too – covering every angle of the Commodore world. And CCI *want* you to be a part of Commodore's expanding horizon.

In order to win a fabulous PC-10, all you have to do is to prove your CBM knowledge:

1. ***What was the very first machine that CBM produced?***
2. ***What does PET stand for?***
3. ***What was the first colour computer?***
4. ***When was the C64 introduced (what year)?***
5. ***What are the three main features that distinguish the PC-10 from all other MSDOS computers?***

Send your entries on a postcard please by Oct. 15 to:

CCI/*PC* Competition, 40 Bowling Green Lane, London EC1R ONE

BASIC 8 Toolkit

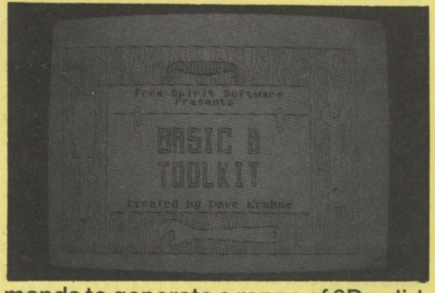
The Hi-Res graphics development system for the C128 in 80 column mode has been enhanced and upgraded. Bob Collyer finds out what it has to offer

Remember way back in 1985 when Commodore released the C128 upon an unsuspecting world promising us a machine with 80 columns, three operating modes - 128, 64 and CPM? Well this they did, they also gave us Basic 7.0, a great improvement over the old C64 basic. The new version would let us write musical scores easily and powerful graphic commands enabled us to draw in all 16 colours a variety of shapes and sprites. We had just about everything for which we had wished: C64 compatibility; a faster 1571 high capacity drive; and more standard RAM with the optional expansion capability.

For a while we were happy and rejoiced and gave our praise to Lord Commodore on high! It was not until later we discovered that there were a few things still not catered for in basic programming. Whatever happened to the 80 column mode colour display? Was it forgotten, pushed to one side, or was it that Commodore thought that the 8563 chip was not designed to support them through a basic interpreter?

We now know differently. Walrus Software created an early monochrome version of a basic extension they called 'Ultra Hires'. This was met with moderate success and helped to spawn the later colour 80 column "Basic 8", which has become the most powerful and productive basic extension ever produced for the C128. The original package available in this country gave you the basic language and 50 new graphic commands along with a product called Basic Paint. With these at hand you could create and sell programs that used Basic 8 Run Time. Many products have been sold commercially using this system — Spectrum 128, Sketchpad 128 and Newsmaker to name but a few.

What makes Basic 8 so powerful? Well, firstly, it offers graphic displays to a resolution of 640x200 pixels, twice that of the 40 column mode. The memory does not eat up any of your RAM as the native 40 column basic 7 did. Secondly, the drawing commands work in three dimensions; they give a great deal of control over perspective, rotation, viewing angles etc. The programmer has the commands to generate a range of 3D solid surfaces.



Basic 8 runs so fast because the developers have used a system that wedges a ML program right into the computer's basic interpreter. Here the old and the new commands can be executed together. Although this method would normally slow down the workings, Basic 8 uses a syntax error wedge. When a new command is encountered, it jumps to the routine that handles errors. From there it will jump to the new interpreter, making this the fastest technique that saves a great deal of processing time.

Commands

There are 53 new graphic commands and five screen formats that take advantage of the spare RAM in the 8563 video chip. The later C128s all have 64K, but earlier C128s only have 16K. These machines, in order to take full advantage of Basic 8, must have the upgrade done; older machines can utilise the basic extension but not to the higher resolutions.

All these new basic commands are not the whole thing as Basic 8 is now a really large package, bursting with more goodies than at first seem possible. Altogether you get the Basic 8 language extension, which opens up possibilities of producing software to sell using Basic 8 Run Time. You also get Basic Paint, the flexible icon-based graphic drawing program. In addition, you get a WIOS Workbench, which is a program that tries to emulate the Amiga's workbench. Small programs are also in this disk for your entertainment utilising Basic 8 such as a program for editing your WIOS Workbench pointer, a mental agility game called Mastermind, and as if that wasn't enough you are given a nice little Kaleidescope that creates beautiful colour displays using two different techniques. There is even a concentration type game called Match.

Some handy utilities that are of tremendous benefit are also included. There is a pic converter allowing conversion of uncompressed Ultra Hires pics; Print Shop graphic images can be picked up as brush patterns and converted to Basic 8 format. Fontconverter will convert any 40 column font created with any C64/128 font editor to the Basic 8 structure format.

A spreadsheet program called BasicCalc and a wordprocessor capable of combining graphic images into text called Basic Write are more serious applications available with this latest version. BasiCalc is quite powerful (albeit small, having only 26 rows by 30 columns). You have the option of making a graphical representation of your sheet. Although it is small, I was able to create a personal finance planner for a full two years.

The wordprocessor called Basic Write is a new combination of DTP style graphic compatibility with the more traditional style WP. You can write text to any part of the page and drop in graphic images as you like. Several fonts, all in the choice of sixteen colours and 25 different sizes give a huge range of possibilities.

Conclusion

Several printer drivers make it possible to output your text to different printers and add the final touch to this product. In conclusion I hope that many C128 basic programmers having read this now have the incentive to buy Basic 8 so that they can produce extra special programs that they can market. This two sided (floppy) disk and 200 page operating manual are excellent value for money (and remember, you could also make a great deal of money also from selling your Basic 8 creations). Good Luck.

B.C.

Price: $29.95
Contact: Free Spirit Software, PO Box 128, Kutztown, PA 19530.
Tel: (215) 683-5609.

Uploading on Compunet

One aspect of Compunet that differentiates it from other on-line systems is the potential for users to create their own areas of the database. On bulletin boards users can upload messages and software and on Prestel users can buy groups of pages to carry their own text. But only on Compunet can users give full rein to their creativity.

Compunet's database is created and maintained by its users. All users have the power to create new directories and unload text, programs and sequential files.

The software used to access Compunet has a built in screen editor that allows the creation of Compunet frames. Using 16 colours, each frame is simply a Commodore C64 screen built from either of its character sets. The bottom line is used as a menu, but otherwise the user can create any mixture of lo-res graphics and text. The Amiga and St Compunet software mimics the C64 so that frames produced by all users are compatible.

While the built-in screen editor is adequate for most work, experienced Compunet users uploading a lot of material tend to use more sophisticated systems for creating their frames. Editor enhancers such as Plexus and Plus+ add a range of powerful facilities for creating frames. While these programs do not enhance the resolution or colours, they certainly improve the ease with which high quality screens are produced. Both editor enhancers can be downloaded free from Compunet (Goto PLUS and PLEXUS).

Although extra functions such as word-wrap are added to the editor by the enhancers, they do not have the "block copy", "move" and "delete" commands needed to revise large chunks of text. Working a frame at a time, the Compunet editor was never intended to be a full blown word-processor.

For major text uploads many users therefore rely on 'Frame Formatter', a utility that adds simple Desk-Top Publishing facilities to the creation of Compunet frames. Frame Formatter uses two files: a template specifying the frame layout; and, a word-processor file containing the raw text. The template frame contains fixed text, such as headings, and special characters identifying where the text is to be placed and page numbers inserted. Frame Formatter makes the text flow into the areas marked out for it, creating new frames as they are needed.

The combination of a good word-processor (I use Superscript-128), Frame Formatter and Plus+ or Plkexus allows the quick and easy creation of very professional looking frames. The use of Frame Formatter makes it easy to ensure that all the text in an area of the database is laid out in the same format.

> ***"To stamp their market on their area of the database, many users have a distinctive logo at the top of their frames and directories."***

To stamp their mark on their area of the database, many users have a distinctive logo at the top of their frames and directories. It is instructive to wander around Compunet looking at the frame layouts and logos other users have created. Compunet logos have almost become an art form in their own right though it is unnecessary to be a graphic artist to give a new directory a professional look. There are a number of very skilled users on the system who are only too willing to produce a custom logo for a new area. The LORES directory contains a wide range of example logos produced by many of these artists.

Although in principle any user can upload virtually anything located anywhere on the database, such anarchy would soon lead to chaos and a set of rules and guidelines have evolved to keep the database in order. Judicious pruning and rearrangements by Compunet's editor helps to keep the database in order.

Many areas are reserved for particular kinds of upload and it is not helpful to anyone to upload irrelevant information in them. Other areas are run by individuals that have set up their own area and wish to stamp their own personality on it. The easiest way to find a suitable area to upload a piece of information, a review or perhaps a new program or demo is to look through METNET's online index at INDEX. This includes notes on whether each area is open for uploads or from whether special rules apply.

If no suitable area can be found then the new upload should go in the 'Jungle'. This area provides free access for everyone. Anyone can upload there as long as they do not break the copyright laws or the bounds of common decency! The Jungle is a fascinating place to explore as it's the breeding ground for new areas of the online database.

Once the correct directory for a new upload has been chosen, uploading is very simple. Having previously loaded the literary gem into the editor, it is a simple matter of moving to the correct sub-directory of the database and selecting 'UPLD' from the dick-shoot menu.

The line in the directory where the upload will be placed is highlighted and the computer prompts for the uploads details, including its title and file type. Having specified the details, SEND is selected from the duckshoot and the first frame begins to upload. It takes a minute or two per frame to transmit, varying with the complexity of the layout. Frames with many repeated characters upload faster because the computer sends a message saying 'twenty times character X' instead of sending the character 'X' twenty times.

The first serious writing I did was a review uploaded into the Jungle on Compunet. That lead to my running my own area of the database and eventually to writing an article for *CCI*. Thus, one short upload to Compunet eventually lead to fame and fortune!

J.L.

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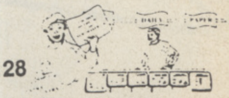

Desk top publishing for the C128D (or the C128 with 64K Video Ram Upgrade). News Maker 128 can be used to create professional looking newsletters, reports, signs and posters. It can be used as a stand alone program or in combination with word processing or graphics software. It uses standard sequential files for "pouring" text into user-defined columns. Full page layout, popdown menus, smooth screen scrolling, font selection, cut, paste, mirror, flip are among the options available.

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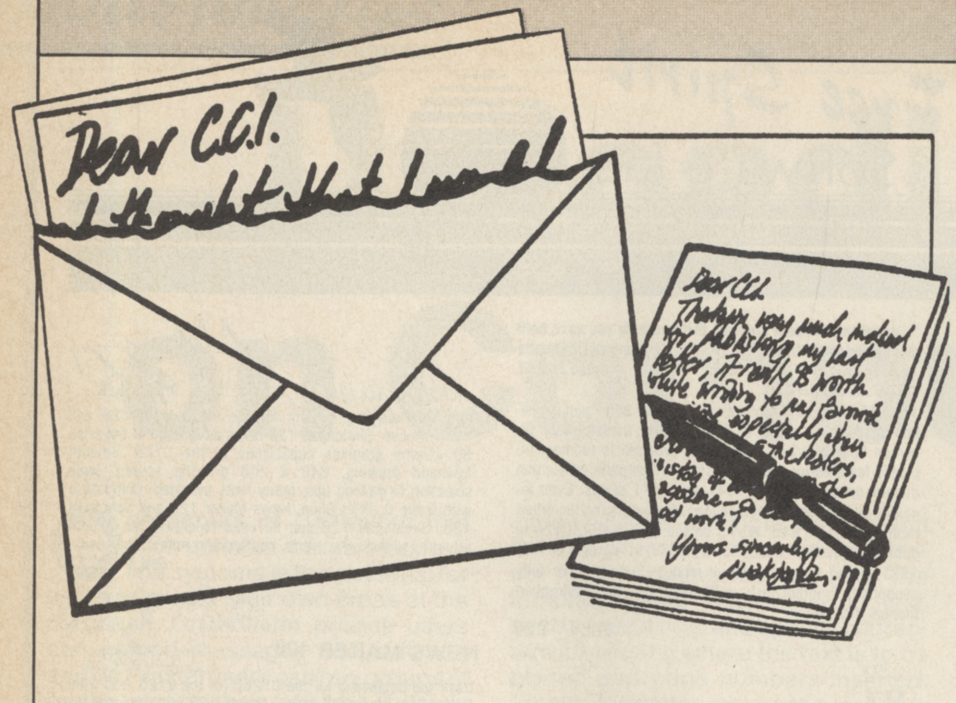
Dear C.C.I.
I thought that I would

Dear CCI,

It's me again, that decrepit 69 year old (now) still learning (my mother used to say "If you live to be a Thousand You still won't know everything") and now Peter Gerrard's article has made me realise I could have done my Program for a title to a Video Wedding a lot Quicker and Simpler if I had had his article four years ago.

Thank you again for being the magazine that you are and having the good sense to pick a contributor who can speak to us in such down to earth language that we can understand.

There seems to be an awful lot of 'NITPICKING'. Are most of your readers omnipitent, and if they are apparently clever enough to spot the mistakes, then why bother, and if J. Quinton was reading ***CCI*** for the past four years, he had the advantage of me, I was still reading 'rubbish' trying to find a decent "MAG".

I agree with Peter Gerrard that the average 64 user may never use the Video Port, but as more and more are asking about using their Computer with their Video then the Video port will now become more useful. As most people with a video camera will also have a V.C.R. then they can connect their 64 via the video port for a much clearer picture, the connections they need are all on page 142 of their User Manual and then they can be terminated with whatever is needed for their particular V.C.R., either BNC, PHONO or SCART plug.

I won't take up any more of your time, all the best,

J. Mullowney, Cheshire

Dear J. Mullowney,

With a large percentage of the UK, European, North America, Australian and Japanese populations in possession of a VCR, and a fast growing number of owners of video cameras, it is not surprising that there should be an interest in using the VCR technology with computers. The view is that all electronic technologies are coming together and when you see the Video Toaster from the US company NewTek carry out amazing performed TV effects in real time on an Amiga screen, it all seems just around the corner. Peter Gerrard has seen the changes over ten years or more on the Commodore screen nad he has that experience and knowledge as a solid base for his articles which, as you say, give excellent information in a very understandable way. But even he could be wrong. Perhaps out there, there are thousands, even millions of 64 owners all videoing away ...

Dear CCI,

Plus 4:- Where now?

Very much thanks for your excellent reply to my letter in the May issue, which puts my concern into its correct perspective, and coupled with your other comments must have reassured many other Plus 4 owners.

Obviously we cannot expect this level of coverage every week as owners of other Commodore (non-Amiga) types are looking for comfort and sustinance in the form of a mention now and again.

This is where CCI scores over lesser publications and we all get good value for money, but in the absence of software adverts it would be nice to see a software availability chart for the older machines.

To be fair my outfit doesn't owe me anything as I have had a great deal of pleasure from it, due in no small measure to the help and support from C.C.I. which I have been taking since I first bought my Plus 4.

I hope this doesn't sound patronising as it is meant to convey well deserved praise.

Commodore should be very grateful to you as I am.

My very best wishes,
Yours sincerely,
George Barker, Hampshire

Dear George,

Thank you for the compliments — and the idea. We are going to look into the availability chart matter and see what we can come up with.

Dear CCI,

I am writing to you with a desperate plea for help. I recently bought that brilliant game Zak McKracken, only to find when I got it home that the all important 'Exit Visa Code Book' was not included withn the packaging. Could you then, help me to get a copy of this elusive document, or put me in touch with someone else who can.

Yours Hopefully,
Ian Foley, Leicestershire

Dear Ian,

The 'Exit Visa Code Book' was a key element of Zak McKracken. It was really a kind of copy protection that was here to stop pirating. It was even printed in red on black to avoid it being photocopied. Now, of course, you as a CCI reader would never be suspected of having knowingly bought a pirate copy, therefore, you must have acquired it legally in a shop. They must be the ones who removed the book. So you can go back to them and ask for it. If you can't get any help from the shop write to U.S.Gold who published 'Zak for Lucasfilms'. Of course only write to them if you get a legitimate copy or they might not be very pleased ...

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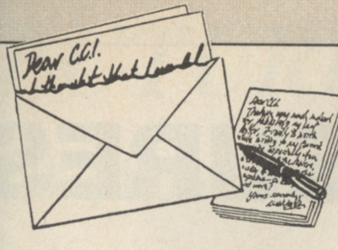
Dear C.C.I.
I thought that I would

Dear CCI,

I have been reading your wonderful magazine since the December 1986 issue and enjoying every page of it (except for Super Felix). At one of the schools I attended all my friends were faithful devotees of ***CCI*** and where I go to school now even an IBM owner (You know that monochrome species of spreadsheet junkies) keeps asking to borrow ***CCIs*** from me. however I have noticed that ***CCI*** isn't what it used to be. Back in the good old days we could expect issues with nearly 200 pages each, whereas now the issues are thinner and although the contents, artwork and similar things seem to have been refined, you should extend the size of your mag. If that means a price rise, so be it.

But what could you put in these extra pages? Firstly you could do more game reviews. While CU, ZZAP and other low-brow magazines cover all the games, you merely do four or five reviews per issue, and just give the other games ratings for the chart. (By the way, I think R-Type deserves a Mega rating, if not Awesome.) I am not saying that you trash all the type-ins and features and just go for mindless ZZAP-style reviews but you should try covering most of the games as they come out.

Yours Sincerely
A. Bulhak
Ferntree Gully, Victoria,
Australia

Dear A. Bulhak

You are quite right that CCI doesn't have the 200 pages it sometimes had (generally around the end of the year issue) but we also used to include a full Amiga user section. That is now a separate magazine and consequently CCI is back on its own. However, if you consider that your interest is probably largely not Amiga, then you may be getting fewer pages but all of material that is what you want. But we have recently increased the number of games we cover and you will generally find 12 or more in each issue. There are even PC games coming in, so even your Monochrome Spreadsheet Junkies (great name that!) will find something of interest then. But watch out — the pages may go up again yet!

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Dear C.C.I.
I thought that I would

MULTIPLE EXPOSURES

by CATHERINE CAULFIELD

(Secker & Warburg £12.95)

Often scientific developments, such as the computer are regarded by the public with deep suspicion. sometimes that suspicion is justified and even ideas that seem harmless turn out to be disasters.

There has recently been a great deal of public disquiet over the proposal to irradiate some of our food. The growers and retailers assure us that irradiation will give food a longer shelf life without detracting from its taste or appearance and that no harm will come to anyone eating anything that has been so treated. But a recent poll showed that the public in general was disturbed that irradiation might eventually cause cancers or other illnesses.

After reading 'Multiple Exposures' by Catherine Caulfield, (Secker & Warburg £12.95) I am even more worried. Yes, I'm aware that radiation and irradiation are not the same thing, but radiation, when it was first discovered, was also not thought of as the killer it eventually proved to be.

'Multiple Exposures' is an eye opener for Ms. Caulfield goes, in great detail, into the effects of radiation on the population of our planet. Not just the fall-out from the atom and hydrogen bombs or from disasters at nuclear power stations, like those that occurred at Three Mile Island or Chernobyl, but of the lesser known dangers which threaten us all.

When X-rays were first discovered by Wilhelm Roentgen, in 1895, no-one realised that, if the rays were used for too long, they were a potentially lethal weapon. The X-ray was hailed as 'a marvellous triumph of science' which, of course, it was. The development captured the imagination of the world.

It was not long, though, before physicists and medical practitioners began to realise that X-rays could be a killer, not only to patients but also to the medical staff who worked with the machines. Safeguards were slowly brought in to protect everyone who had any connection with X-rays but not before many thousands had contacted illnesses and hundreds had died.

Now, of course, we are fully aware of the dangerous potential of X-rays. Pregnant women are never allowed to be photographed by the machines and the radiographers themselves are shielded by lead-lined rooms. Nevertheless, X-rays are still being used by, for example, dentists and their assistants, and many have had no proper training in how to use the machines or how to protect both themselves and patients from the radiation.

The truth about radiation was first realised very early on but, even though it became apparent the X-rays could cause medical problems as well as help solve them, many of the people who worked with the, admittedly primitive, machinery were reluctant to believe the rays were harmful. It was only when cancers and cancer-related illnesses among the workers became greater in proportion than the same diseases in the general public that the cause and effect was admitted.

Do you remember luminous dials on clocks and watches? Originally the luminosity was achieved by women using paint brushes dipped in radium paint. 1915 was the year Dr Sabin von Sochocky opened a company to market his 'UNDARK' radium paint.

The workers found that the brushes used to illuminate the watch numbers, in particular, could be cleaned to a finer point by putting them between their lips and licking them. Naturally, each time they licked the brushes they swallowed an infinitesimal amount of radium. By 1924 nine of the young dial painters had died and many of those still living had severe problems with their teeth and jaws.

Ms. Caulfield cites chapter and verse of many such frightening cases and we seem to be no safer now than we were then. If anything we are in even more peril. As she states: 'gradually over the last few centuries, and especially in recent years, the human race has developed technologies that have increased its exposure to natural radiation.' Radon levels in the soil which seep into buildings, underground mining that exposes workers to radionuclides in the rocks. You can even get a small dose of cosmic rays from air travel, the longer the flight the more you get.

Again to quote the author: 'Scientists think differently from the rest of us. A simple statement such as 'this X-ray is perfectly safe' may mean every different things to the layperson and the scientist.' There are so many radiation producers in our daily lives that it as well to know about them so that, if it is at all possible, we can take precautions to protect ourselves. This book is a mine of information on the subject.

'Multiple Exposures' is a book to be read by anyone who has a vested interest in living as long as possible in the best possible health. And which of us has not?

D.M.

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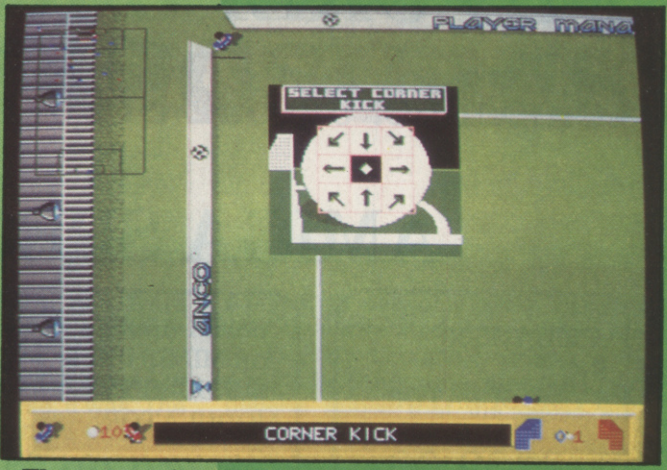
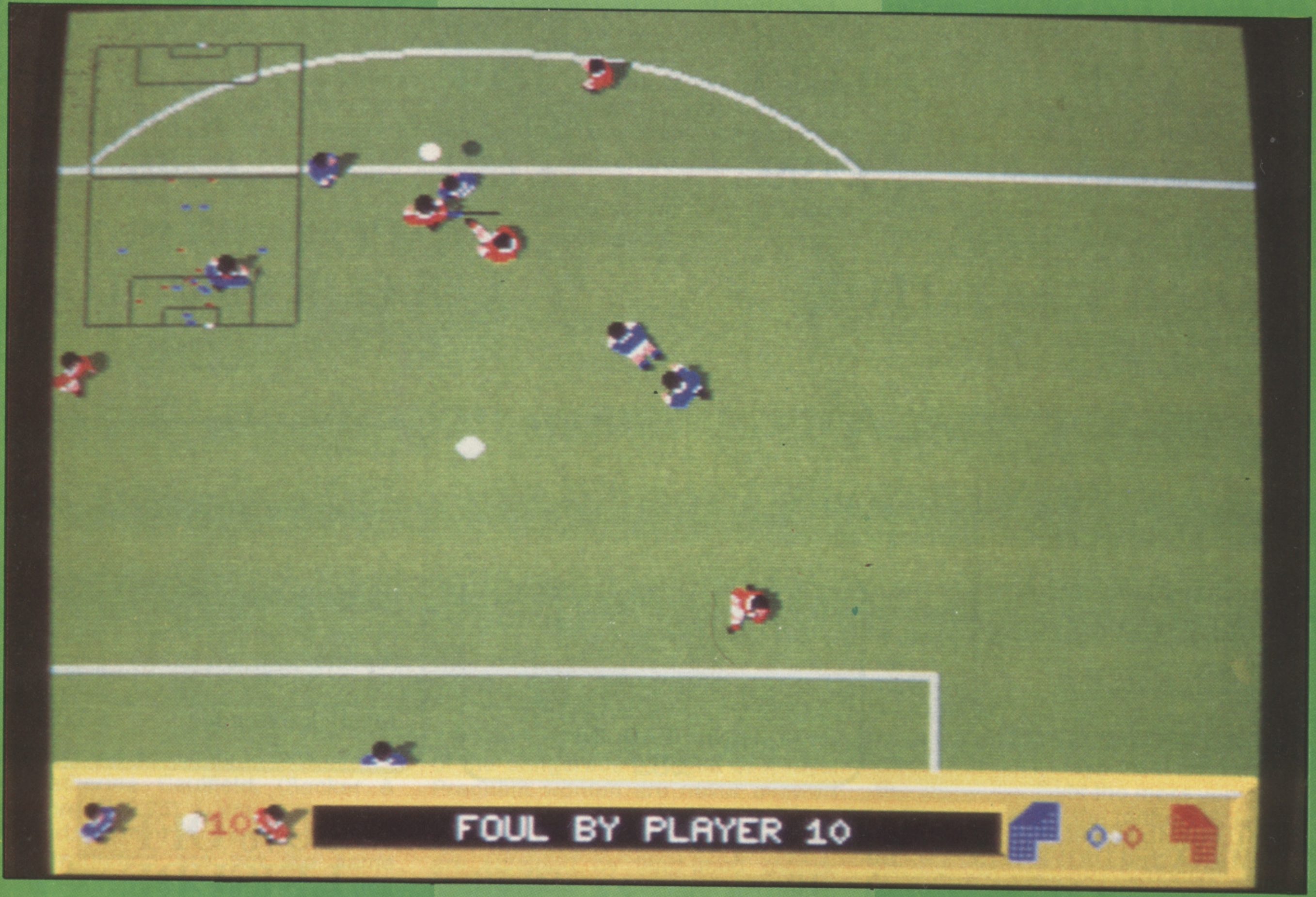
BARBARIAN - THUNDERCATS - BUGGY BOY - WIZBALL - IKARI WARRIOR - AMEGAS - TERRORPODS - MERCENARY

Putting my feet up, sipping cups of coffee and playing a decent footy simulation is my kind of entertainment - almost as enjoyable as the real thing. And I have certainly had plenty of it recently, with the excellent releases of Audiogenic's Emlyn Hughs International Soccer and Microprose Soccer by... (you guessed it). Kick Off is Anco's latest offering, giving you full-screen play with options such as penalties, sliding tackles and free kicks.

Before you play the game properly you might like to warm up a bit to get the feel of the controls. This is done by selecting the 'practice skills' option. This gives you the chance to kick the ball around the pitch without any interference from opposing players. To dribble the ball you run into it and keep the joystick pressed in whatever direction you were running in, this will result in your player tapping the ball up the pitch; this is unlike normal simulations in which the ball appears to be clinging onto your feet.



There are nine different directions to kick the ball from the corner flag, some of which are airborne and some not.

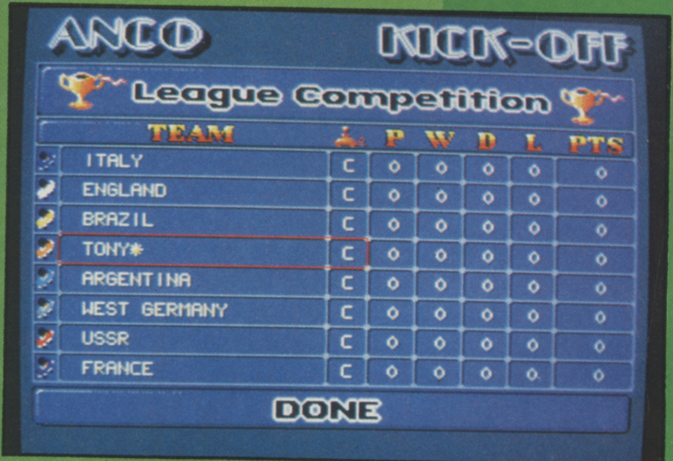


"There are nine different directions to kick the ball from the corner flag, some of which are airborne and some not."

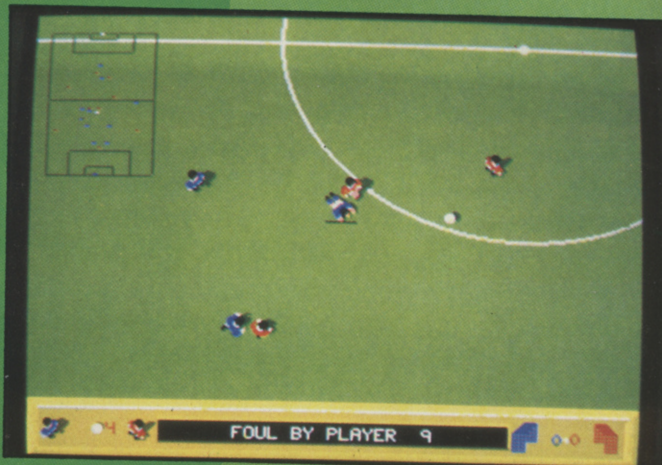
At first this control method can seem a little confusing, and sometimes frustrating, but if you keep at it you will soon get the hang of it. You can pass the ball, chip the ball, or, alternatively throw it in from out of bounds. The computer controls the throw ons but corners are controled by the player.

A game of footy wouldn't be complete without the odd sliding tackle here and there now would it? Or the occasional penalty. To slide tackle simply press the button while running into the player in possesion of the ball. If you slide in too late you will send your opponent tumbling to the ground in spectacular form, thus giving away a free kick or penalty. If you do a particularly bad foul you will be shown the yellow card, or if you hack away at your opponent time after time you will be given your marching orders.

There are five skill levels to choose from ranging from a Sunday side to an International side. You can



TEAM		P	W	D	L	PTS
ITALY	C	0	0	0	0	0
ENGLAND	C	0	0	0	0	0
BRAZIL	C	0	0	0	0	0
TONY*	C	0	0	0	0	0
ARGENTINA	C	0	0	0	0	0
WEST GERMANY	C	0	0	0	0	0
USSR	C	0	0	0	0	0
FRANCE	C	0	0	0	0	0



play against the computer, against a friend (or should it be enemy), or two players against the computer. I found that the two player mode was the best, but with the computer skill levels it still plays well on one player mode.

Apart from the single game facility, you can also take part in a league consisting of eight teams and lasting eight weeks. All teams play differently and you can also set your desired skill level.

There are a couple of little niggles I could pick up on, such as the lack of swerve shots and action replays to re-live those memorable moments. As it is, though, Kick Off's real plus is its playability factor. The game uses full PAL scolling to give maximum playing area and small but realistically moving sprites.

The odd thud of the ball and the referee's whistle together with one or two sampled voices are the only sound effects in the game, but these suit it well. The graphics have a certain cuteness about them and give the game a lot of character, especially when a player is fouled.

Kick Off is one of those games that is certain to top the charts, and it fully deserves to. No-one with the slightest hint of interest in football should be without a copy.

D.H.

Kick Off

Anco

Graphics: 86%
Sound: 72%
Playability: 90%
Overall: 89%
Price: £19.99

String 'Em From the Yard Arm

Peter Gerrard 'walks the plank' for the third and last time

People do get hot and bothered about this vexed topic of piracy, don't they? The two articles preceding this one provoked a number of letters to CCI, some of which were printed and some of which meandered on their merry way until they got to me. I suppose there is roughly a 50/50 split either for or against piracy (he said, using a pirated word processor program to write this article), but it is interesting to note that those who are in favour all seem quite content to tell me that they are copying software and thus breaking the law of copyright. There is even a computer club that I know of where they appear to CHARGE for the pirated stuff, and that is very naughty indeed. It's very illegal, too.

> ***"The letter that prompted this third (and hopefully last) discussion on piracy came from a chap called Mike Vine, who works under the pseudonym of The 128 Gamer."***

The letter that prompted this third (and hopefully last) discussion on piracy came from a chap called Mike Vine, who works under the pseudonym of The 128 Gamer. He happily admits that he is giving the viewpoint of the pirate, which as an opening paragraph in a letter is somewhat akin to a note from Ronnie Biggs that begins *"re, Great Train Robbery, I'd like to give the robber's point of view"*. Well, perhaps it is not quite so grand, but still . . .

Concerning 'software swop' offers, Mr Vine states that *"the very latest stuff offered for swop is only 'hot' for a week or so after release . . . I wonder how many pirates have disks full of software that they've never loaded again after a week or two, and OLD software isn't swopped any more"*. I'd dispute the first part of that, since the computer club to which I referred earlier has software going back donkey's years, or so it seems. However, Mr Vine is obviously far more into piracy than I ever will be, so we will take his professional opinion and let it stand. The part about having stuff that they have never loaded again mystifies me.

What is the point? Are people pirates so that they can boast about the number of games that they have, most of which they have only ever played once? I think not, and I can well imagine that in the course of six months hard pirating people do come across a load of dross. However, if that is the case, and *"OLD software isn't swopped anymore"*, then why keep it? "OLD software isn't swopped" and "pirates have disks full of software etc." strikes me as a waste of disks. Or, more likely, do they just hold onto it and swop again at some later date? Interesting, eh Holmes?

Mr Vine also wrote. *"When software is available 'for swop' sometimes many months before its official release, don't forget there is only ONE WAY that that software could have reached the pirate circuit, by being supplied by someone within the company concerned"*. He concludes that *"companies themselves are as unconcerned about 'Pirate swopping' as they are about their internal security arrangements"*.

A source within a company is indeed one way in which games, for example, could reach the pirate circuit. Yet to suggest that it the *only* way is a mite naive. I doubt whether every software company has their own in-house tape duplication plant, for instance, which means that there is another source straightaway. Many games are not initially developed on the machine for which they are finally released (I speak of the adventure world here, for I know more about that than the arcade world). What happens is the company first produces a sort of universal multi-machine version written in some obscure language. And then there are such things as modems and hackers, the latter sometimes being a pestilence on the software world. Not always, but sometimes. To conclude from that that companies are uncon-

cerned about piracy strikes me as being a tenuous defence of the pirate's viewpoint. Most companies I have ever spoken to are concerned about piracy but regard it as a necessary evil.

> **"The famous example of an unnamed computer magazine rumoured to be sending review copies of the new games abroad for mass duplication and piracy is a case in point."**

The famous example of an unnamed computer magazine rumoured to be sending review copies of the new games abroad for mass duplication and piracy is a case in point. No, the magazine wasn't *CCI*! If you have to send out review copies (another source of pirate tapes appearing) in order to keep in the public eye then it has to be done, otherwise interest in the company and its products will not be generated. On the other hand if you do not send the stuff out then you will not get pirate copies appearing from that particular source. What is a company to do? They send out review copies and sometimes, just sometimes, have to suffer the consequences. This does not mean that they are unconcerned. Alternatively, it means that their hands are very severely tied. There is nothing they can do.

Now before everyone moans at me, I am not saying that tape duplicators, magazines, hackers etc. are responsible for any, all, or even some of the pirate software around. But Mr Vine is right in one respect it has to come from somewhere. Of course, the person receiving it does not have to copy it, but then if they didn't, they would not be a fully fledged pirate, would they?

But now, roughly halfway through Mr Vine's letter, we come to the real reason behind piracy. Money. It is the root of all evil, so they say, and it is certainly the root of most piracy. He wrote: *"One obvious reason for someone preferring a pirate copy must of course be the low quality/high price of so many games".* A bit later on we read *"A GOOD game that deserves to sell will do so, but conning the kids with a POOR ten pound game just makes it more likely their next game will be from a swopper/pirate rather than the local computer shop, doesn't it?"* Trying to make shops go out of business as well, now, are we?

Let us look at the first of those two statements, about preferring pirate copies because of the price. Regardless of the legality of it all, that is. Why does Mr Vine and every other pirate think that the prices are high? Is it because the companies are trying to rip everybody off by charging exorbitant prices for their work? Or is it because there is a 10 per cent price margin (or whatever figure) put into the price to help them recover the inevitable losses that will occur through the activities of our friendly pirates? Probably a mixture of both, I would imagine.

The pirates, so it seems from Mr Vine's letter, are trying to get us on their side. Just as some people admire characters such as George Best, Alex Higgins, or whomever, looking upon them as some sort of lovable rogues, so we are meant to picture the pirate. For many, the pirate is a swashbuckling daredevil kind of person who is not doing anyone any real sort of harm. But for every nine people paying over the odds for a computer game, one person is getting it free and putting the price up for everybody else. That's not very nice is it?

Mr Vine's comments about the companies conning the kids (popular phrase that, "the kids") with a poor ten pound game does not take into account why the blessed thing cost ten pounds in the first place. Why? Because the pirates are conning the companies. And as to the statement that a good game that deserves to sell will do so, of course it will. It will also be copied more than a bad game as well, but we will overlook that point, shall we? Instead, we will carry on paying twenty five quid for a game that would probably cost us twenty or less if various pirates were not ripping companies off and being greedy by helping themselves to free software.

If what I have just written fails to stir it up, nothing will. I just happen to think that it is true, that's all. Let me, then, from my soap box read the end of Mike "128 Gamer" Vine's letter:

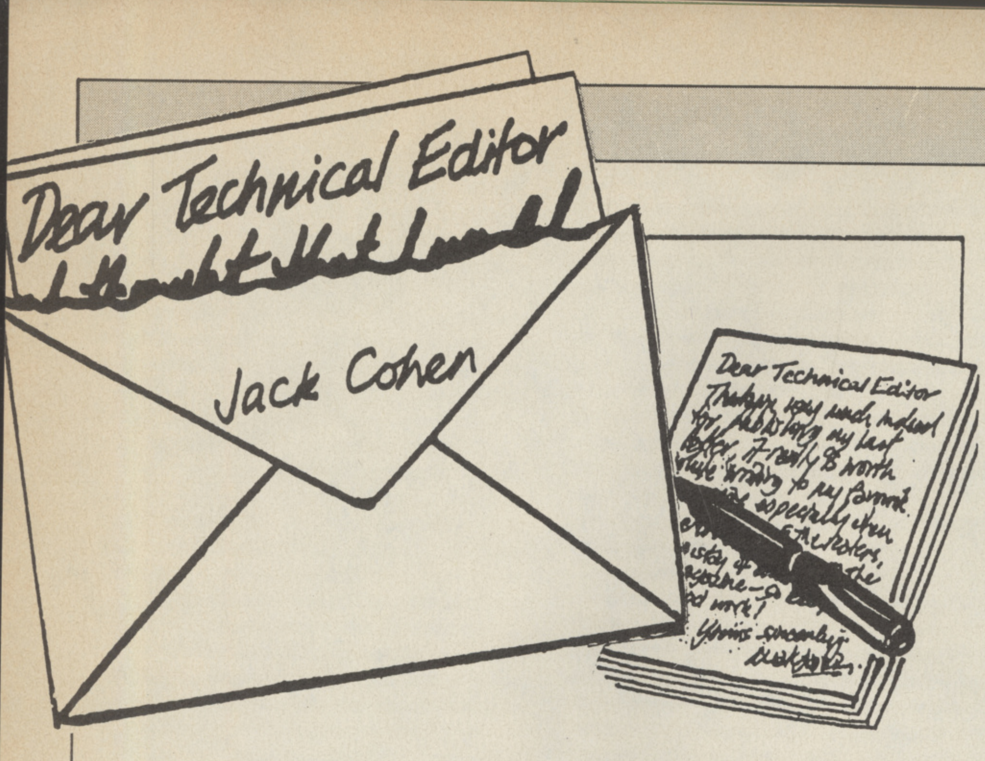
"Finally . . . one point in favour of the swoppers network (that's to thee and me, P.G.), mainly for making games available that otherwise would not be". He quotes Katakis from Electric Dreams as being a classic recent example. *"If it were not for the pirates, and unless it is eventually officially released, this game would not be available for those who want to decide for themselves what games they play?"* Oh, dear me.

Having spent a vast sum of money on the conversion rights to a game, I feel that it is marginally more important for the company concerned to decide whether or not to release the game than it is for some pirate getting it free. Of course people have a right to decide for themselves what games they can play. That is why we have things called shops, although I do realise that not everybody has access to a computer store with a wide range of software. There are magazines, but not everybody can read or even agree with a review of the game they want. There are user clubs and mail-order advertisements, but that would cost money to find out whether or not you liked the game, and we cannot have that. Let's get into a pirates' network and get everything for free and let other fools worry about actually paying for the software (and probably paying more as a result of piratical activities, I might add).

The letter finally ends with *"I know that none of this EXCUSES piracy, but it's just my opinion that it isn't quite the problem that it's made out to be".* It does not make it legal, either, so you keep getting your software for free and the rest of us will continue to pay over the odds for it because of people like you.

And that, I hope, is the last we'll ever hear on the subject! Somehow, though, I doubt it . . .

P.G.



Dear Technical Editor,

As I am a C64 owner and have been for 4 years, I would like to know if I bought a VIC20 or a Commodore 16P4 could I use Basic programs from the C64 on the VIC20-16-+4 without adding an interface to them.

I also would like to find out if I bought a modem how much would it coast. Can I get one under £100 and how much would it cost to use each month approx.

Stephen Morgans, Kent

Dear Stephen Morgans,

Basic programs can be used providing they do not use PEEK, POKE, SYS or USR calls that are peculiar to the C64. Then you can type in the programs but they will probably need some adjustment for screen, format etc. You do not mention if you have a disk drive or cassette. If using disk then a modification of the load address using a disk monitor will load programs saved by the C64 to one of the other computers using the same drive. All the computers that you mention can use the 1541 drive.

A suitable modem for the C64 would cost approximately between £43 and £70. The cost will depend on the amount of usage and is made up of the basic cost of the service that you choose plus time charges and possibly crame charges. Prestel and Compunet are two of the services available. Contact them for current costs.

Dear Technical Editor,

Help! I own a commodore 64 computer and a cassette recorder. My problem is that I want to run PASCAL programs on my 64. Can you, or any of your many followers, supply me with a suitable program for the above system?

I also have a recommendation for your readers, if you are thinking of buying a printer for your 64/128, I strongly suggest the Star LC10C. I bought one about two months ago and have found it to be a very good buy, especially at only £199 (as my Evesham Micros prices, (plug, plug)).

But, as I have said the main reason for my letter is about the PASCAL compiler for the 64. I have found one, but alas, it is only available on disc, and not on tape!

Yours sincerely,

M. Lambourne, Oxon.

Dear M Lambourne,

I have not heard of a PASCAL compiler for the C64 which is tape based. It would probably involve several tapes and be extremely slow and limited to compiling small programs. However, if any reader has knowledge of such a compiler then please write in!

Dear Technical Editor,

I have 'inherited' a Commodore 8032-SK, together with CBM 8250 dual disc drive, MPP 1361 printer, and the necessary cables, all in good working order.

Although I do not need the other computing facilities, I would like to use it as a Word Processor. Do you think this would be possible? And if so, can you suggest software that I might need?

Yours faithfully,

Mrs R. J. Monk, West Sussex

Dear Mrs R J Monk,

Wordprocessing software was produced for your system and was and probably still is used by many business's. Wordcraft, Wordpro and Superscirpt being the software most often chosen. Wordcraft was supplied by Dataview Wordcraft Ltd., Raydix House, East Street, Colchester, Essex CO1 2XB. Write to them to see if they can still supply suitable software. Superscript was supplied by Precision Software Ltd., Worcester Park, Surrey. If you are unable to get software then try through our free classified ads to get used software, not forgetting the manuals.

May I remind readers that if you buy old systems from business's that have upgraded, then it is essential to ask them for software to go with the system. After all, most business's use wordprocessing software with their systems.

Dear Technical Editor,

I am currently writing a basic extension, and have come across the need to pass parameters to machine code. In particular, I wish to incorporate a 'DEL' command that will erase files on disk. I know that $AD9E should do something to help with writing strings, but do not know how to call it.

My wedge looks like this:

```
STARTWEDGE     JSR 0073              ;CHARGET
               CMP#$44               ;D
               BNE ENDWEDGE
               JRS 0073
               CMP#$45               ;E
               BNE ENDWEDGE
               JSR 0073
               CMP#$4C               ;L
               BNX ENDWEDGE
               (Here is the delete
               routine)
ENDWEDGE       JMP A7E7
```

Please explain how to pass alphanumeric strings to machine code, so I can finish my project.

Yours hopefully,

Marc Bangs, Herts

Dear Marc Bangs,

The routine at $AD9E is used by basic to evaluate INPUTted expressions whether string or numerical. I suggest using a '!' to precede say 'D' for delete and only available in program mode. A full description of how to use a wedge program is in Raeto West's 'Programming the C64 Revised' which is available from Computer Manuals Ltd Dept P7, 30 Lincoln Road, Olton, Birmingham B27 6PA ref 3482 at £14.90. A complete sample program is also listed. It would take up too much space to list here.

Dear Technical Editor,

On request from Nick Williams, Bucks, cheat poker for the VIC20:

Perils of Willy: For infinite lives reset the Vic then poke 36879,8: poke 646 1. Rewind the tape and verify. When the cursor appears, type SYS64802. Then type LOAD and press play. After ready appears press run/stop & restore. Now type poke 11020,204:SYS 12269.

Jetpac: Type: LDAD. Type: 110DATA 160,31,32,66,24,35,160,255,140,232, 35, 136, 140, 219, 35, 76, 29, 32. Type: RUN.

WUNDA WALTER: POKE 4912, 19: POKE 4911, 49:POKE 36869, 147: POKE 9367, 128: SYS 4867.

The above should be entered after loading the game and then pressing the reset switch.

Yours sincerely,

J. Hadlow, Scotland

Dear J Hadlow

Thanks for the help for Nick, whose letter was in the June 89 issue.

Dear Sir,

Please find enclosed the Pokes for "Perils Of Willy" and "Jet Pac" for the Vic as required by Mr. Williams in June's issue.

Perils of Willy Infinite Lives.

Before loading, type: Poke 36879,8: Poke 646, 1 (press return). Rewind tape and verify. When cursor appears type SYS 64802 ¢press return). Then type "LOAD" (press return) and press play. When ready appears press run/stop and restore. Then Poke 11020,204 (press return). Type SYS 12269 to start game.

Jet Pac. Load loader. Delete line 70 which says SYS 5376. Hold shift and press run/stop. type poke 9179,x (x being any no from 1-255). For player two type poke 9192,x. Then type SYS 5376. Press run/stop to start game.

Many thanks,

Dave Hill, West Midlands.

Dear Dave Hill,

And than you, too, for even more help for Nick from our readers!

Dear Technical Editor

I'm a French reader of CCI (the best!!!). I have a C128 and a 1571. The last one (the 1571) give me a lot of problem. I can't load a game "correctly". The drive make suddenly strange and unhabitual noise, and it's all. Sometime, the drive load but it never go far. It stop loading when the soft go over 30 blocks.

I think that it's a problem with the alignment of the head. I hope you have understood my problem and you have a magic solutiion.

With many thanks,

Fabrice, France

Dear Barral Fabrice,

I have no magic solution for disk alignment problems. The drive should be checked and the head properly aligned to the correct standard. Do not forget that after the head is aligned you will not be able to load your own software, (previously saved by you) as they will have the old alignment. Commercial games and other commercial software will load OK. If you are technically minded then buy a special alignment diskette to adjust the head movement yourself. If not then try the advertising sections in the local commodore magazines for repairers. Otherwise our Magenta pages carry adverts from UK repairers, but this may be difficult for you to get your drive to them.

Dear Technical Editor,

Last Christmas I purchased my first computer which was a Commodore 64C, but when I connected it to my television via the aerial socket the picture quality was poor. So I looked through my television manual and found that it had an RGB/Sound input socket and an RGB/TV switch to change between the two different modes. I then looked through the Commodore comptuer manual and found that the 64 had an audio/video socket. I then wondered if the computer and television could be connected via these two sockets so I went to my local retailer who told me that Commodore sockets are not standard and that they don't sell these leads but that an electronics shop could easily make me one. I then went to an electronic shop but they told me that it is not possible o connect the sockets. Could you please tell me which of the two is correct and if it is possible ot connect the 64 and TV in this way then could you tell me where I may purchase a lead and will it make any difference to the picture quality.

Yours faithfully,

R. Brown

Dear R Brown,

I see from your diagram that you have the older C64 with a five pin din socket. This socket is provided to connect to a monitor (but not an RGB monitor). RGB is not available as output on the C64 and this is the reason why you cannot use your RGB/TV from this socket. Have you tried fine tuning the C64 when connected to the TV? Don't try this unless experienced in electronics because it means using a screwdriver on the appropriate screws (located by the RF socket) whilst the computer is open and live current is flowing! The box with the screws should not be live, but it is always best to use an insulated screwdriver and not touch any other parts. IF YOU DO THIS THEN IT IS AT YOUR OWN RISK!

Otherwise you need to buy the commodore monitor for the C64.

Dear Technical Editor,

I have a Commodore +4 with built in wordprocessor but do not have the relevant instructions.

Can I still obtain one or can you or one of your readers help.

Yours faithfully,

David Reeve

Dear David Reeve,

The instructions for the built-in wordprocessor are contained in the Commodore 3 + 1 software manual which was supplied with the PLUS 4 together with the user manual. First contact the person who supplied you with the computer because they should have supplied both manuals with the machine. Otherwise send in one of our FREE classified ads asking if any readers have a copy that they can supply to you.

Dear Technical Editor,

I'm doing a sampler project on my trusty 64, and I am thinking of using the user port of the audio line as input channel. Are there any registers to read information from when using the audio line?

Yours faithfully,

Erik H. Bakke, Oslow

Dear Erik H Bakke,

I recommend the user port which is designed for communication with the outside world including via modem and/or control of electronic equipment. To use the audio/video socket requires some experience of electronics in order to receive signals via this port. Do not forget that four of the SID chip registers are write only, and these are the most important ones. This can be overcome by using pseudo-registers which are a series of locations in normal memory which acts as a parallel storage area for values which are then placed into the real registers. This means you will need code to process the input signals, perhaps into the speudo-register and then into your sampler project.

Navy Moves

Dinamic

Dinamic, now distributed through Electronic Arts, are becoming something of a bore. Establishing a style is one thing, repeatedly coming up with the same old games is another. Imagine Game Over I and II, Army Moves and Freddy Hardest all rolled into one; and there you have it, Navy Moves in a nutshell. Now, you wouldn't be wrong in saying there is a slight lack of originality about this ...

Navy Moves comes in two separate loads. The first concerns your journey to an enemy base hidden inside a mountain, which itself is sectioned into three. Part one is all about crossing a densely-mined seascape in your bouncing inflatable. The mines are tightly packed, often in clusters of two or three, so your jumps have to be perfectly timed. Jet-skiing troops buzz in from both sides, firing more explosive to be dodged.

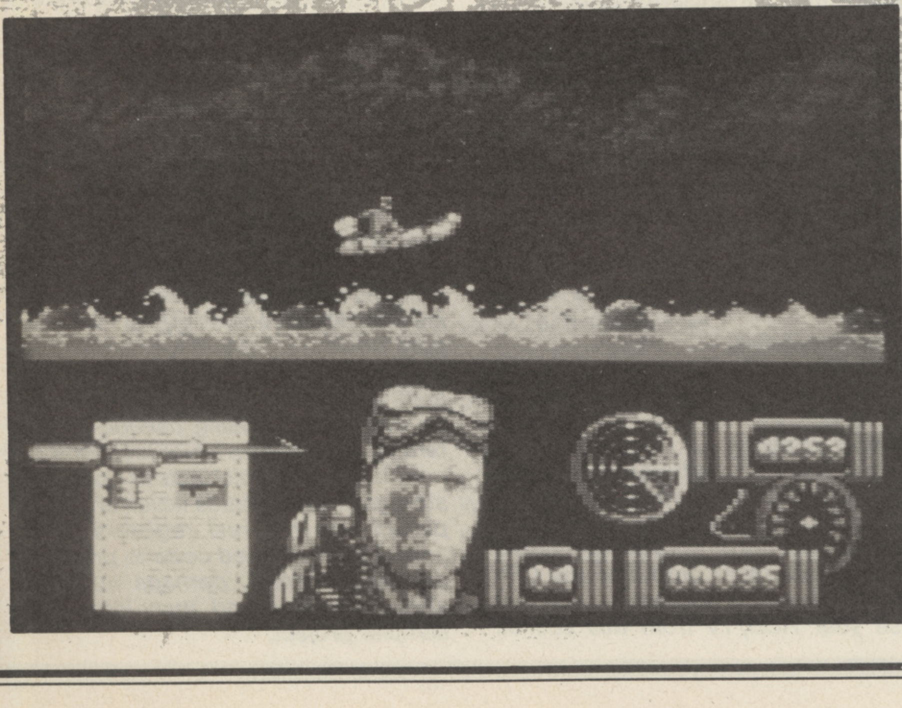
Cross the minefield and the game continues beneath the surface. In your scuba kit, armed with a harpoon gun, you see off sharks in scroling seen-it-all-before shoot 'em up stage. Skewer the sharks and find the mini-sub, then do battle with a mean octopus. Surviving that gives you the access code for the second load.

In keeping with the lack of innovation of the rest of the game, load two is a flip-screen platform arcade adventure. Your goal is to prime a bomb underneath the reactor and escape in a sub. To get to the more important locations you need to fool the base computer into thinking you are authorised. Shooting the corresponding official and stealing his entry code will do the trick. Problems arise with the marines, some of whom are armed with rifles, others carry flamethrowers. A handy trick is to bump off by knocking them out with a moving lift platform.

Not a hint of originality has managed to worm its way into Navy Moves. Scrolling shoot 'em ups and multi-screen platform games are not enough on their own these days. All of the first three sections are extremely simple, and the boat stage is too frustrating by far. Graphics are blocky, the music is tuneless, and the game is just the most boring thing I can ever remember coming from Electronic Arts.

T.H.

Graphics: 40%
Sound: 51%
Playability: 30%
Overall: 30%
Price: £9.95 £14.95



Amiga
No surprises here. Gameplay is identical and the sound is little better. The graphics benefit from finer definition but lose out through lack of fluidity. The biggest downer is that Amiga users have to pay a whopping £24.95 for the displeasure.

Graphics: 43%
Sound: 57%
Playability: 30%
Overall: 25%
Price: £24.95

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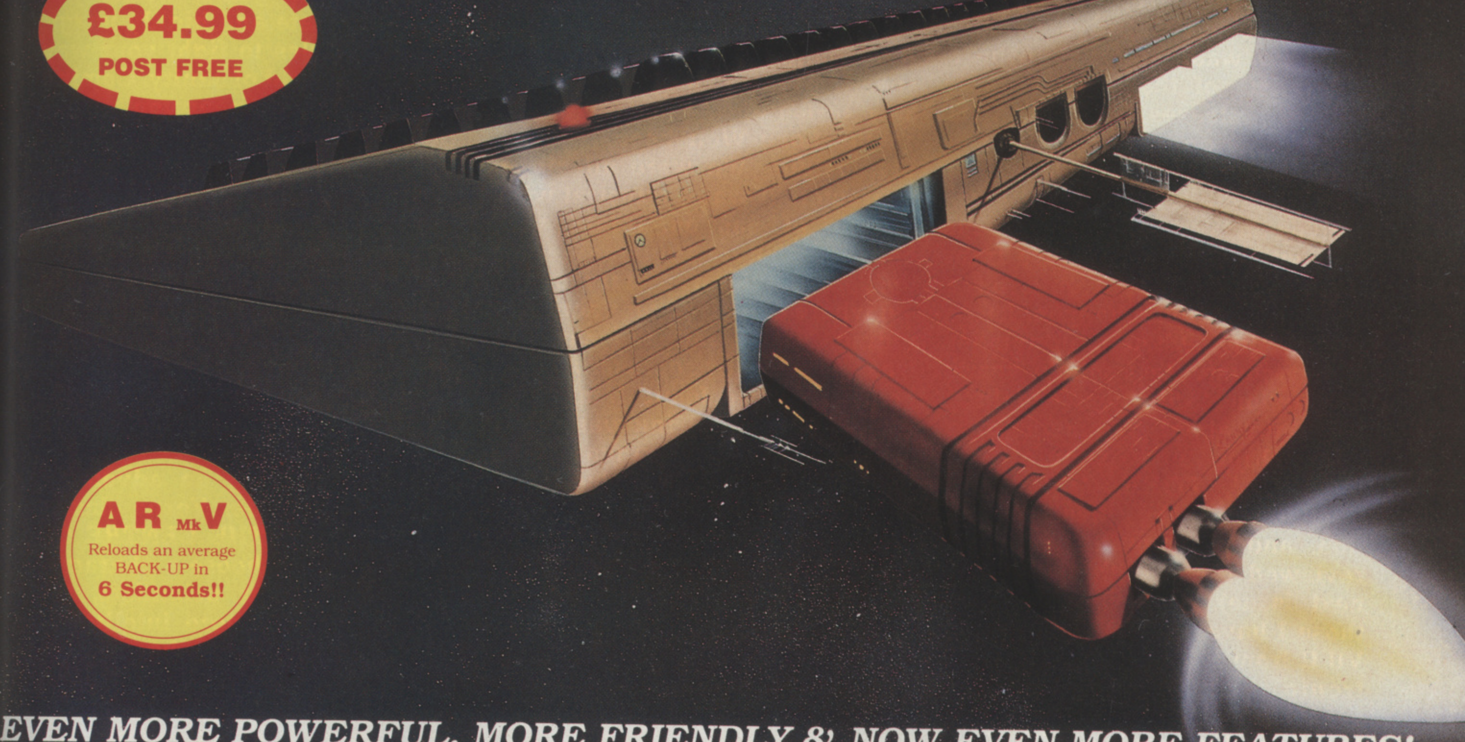

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ARV 2

Adventure

BY ANDY MOSS

Welcome back to some more CCI chronicles of adventure, heroes one and all. I have always thought that July was supposed to be a quiet time of the year for new software releases. If this month is anything to go by, the summer is going to be a feast. No less than SEVEN epic adventures have arrived on my desk this month for review! Three of them are from Infocom, and who would have thought that would happen. There was a time when that number would constitute a whole year's production. Still, we shouldn't complain about too much of a good thing now should we? JOURNEY, ZORK ZERO and SHOGUN, are the titles in question, and two out of three are reviewed this month (Zork Zero next issue). Following on from those I have WILLOW and DEJA VU II from Mindscape from Electronic Arts called PROJECT FIRESTART (reviewed by Paul Rigby in this month's CCI). Last but not least is GOLDRUSH from Sierra, high adventure in pioneering America.

Before all that, my news this month must be the tale of the Audiogenic press launch for their LONE WOLF adventures that was held in the caves near Chislehurst in Kent. This is the scene of some real life role playing D and D courtesey of the Labyrnth Club where you get the chance to don a character, take up sword (albeit foam covered) and shield and do mighty battle with unknown terrors of the dark caverns. It is great fun but there are many club members who take their roles very seriously indeed; some have had their character for over two years without it being killed. Audiogenic put on this bash, specifically to highlight their new series of adventures based on the Lone Wolf books by Ian Livingstone. We were all given characters (I was a minstrel with a fear of castles, would you believe?) and told to mingle with the assorted throng and try to find out where Lone Wolf was actually hiding. A trip into the caverns was of course necessary, and before long we found him, whereupon food and drink was made available to all. Thanks for a great time, and we all look forward to the actual computer adventures being of the same high standard please.

ADVENTURE NEWSDESK

MICROPROSE BUYS TELECOMSOFT

In a deal that is reported to be a six figure sum, Microprose has aquired Telecomsoft, and all its associated labels, including Rainbird, publishers of all Magnetic Scrolls adventures. What this means is that the famous STAR TREK game that has been promised for so long is now available for the 64. Hooray! See Tony Horgan's review in this month's issue.

WEIRD DREAMS FROM MICROPROSE

Lying comatose in your hospital bed, you drift helplessly into the surreal, shifting landscape of the subconscious. Nightmares come to life, rose bushes snap their jaws, toys spring to life. This is the stuff that dreams are made of. Weird is the game, where you solve intricate and highly imaginative puzzles to fight your way back to a world of sanity. Coming soon to a screen near you.

LORDS OF THE RISING SUN IS OUT

Cinemaware's Lords Of The Rising Sun is now available on Amiga, with the 64 version following not too far behind. Music is fab, graphics as usual, superb, but gameplay a little complicated. But it grows on you.

RAINBOW ARTS GO TUNNELING

German software house Rainbow Arts is releasing an adventure based on the Jules Verne classic JOURNEY TO THE CENTRE OF THE EARTH. Choose a character from 4 eminent scientists, the older ones are more intelligent, but the younger ones have better physical qualities. Follow in the footsteps of Arne Sakrussen and accompany a group of intrepid adventurers into the unknown. The game is programmed by the same team who brought us JOAN Of ARC.

ADVENTURE MAILBAG

Dear Andy

I would just like to start off by saying how much I enjoy reading your column each month, although where I live adventure

games are extremely scarce, but what I have obtained I have enjoyed very much. I am writing this letter after seeing your article on Fergus McNeil in your March issue. Having read reviews in other magazines about 'MINDFIGHTER', I felt it had been slammed for its realism, which although being slightly gruesome was needed to portray the atmosphere of post atomic war. Personaly I like a good book, and so I appreciate a good story that is sound in its ideas, so this must be for an adventure, to create a good spy story the writer must create realistic surroundings. With this in mind Fergus was justified in writing 'Mindfighter' the way he did. Perhaps adventures could be used to point out what's wrong in our society as well as making them enjoyable, such as a terrorism theme, so we can understand the problems of the world.
Grant Pearse Victoria, Australia

It is always good to hear other people's views about controversial subjects, and I am pleased that you agree with my article. I wonder though what you thought of, say, Jack The Ripper. Was that exploitive or just historical detective entertainment? Either way, it makes for interesting debate.

Dear Andy
Could you please help me. I have been stuck for ages on Knight Orc. In the second part, is the recruiter a machine and if so is it in the cupboard. Please , please, where is the cupboard?
Damien Senger Hobart, Australia

Well my Aussie friend, I am racking my brains to find a recruiter in Knight orc but to no avail. However, there is a cupboard, and this is very important. It is found behind the metal door, but to get in you need an authorisation key card which is hidden in a mousehole. Use the eye to locate the key in the hole then use the key to open the door. Take and keep everything you find there.

Dear Andy
I am stuck on a really old adventure. How do you get onto the cloud in the sky in SPIDERMAN, and in THE HULK how do I find The Sandman? Please help me with this or I will swallow a bomb and detonate it!
Andy Ratcliffe Kent
Sorry Andy, just keep the fuse unlit a bit longer. My distaste for a lot of the Scott Adams/Adventure International releases meant that I did not play them through. Can anyone help this living time bomb? Answers soon please.

Dear Andy
I read in your column of TALESPIN and it seemed very interesting. When is it available and what is Microdeal address and how much is it?
Bo Kvanne Norway

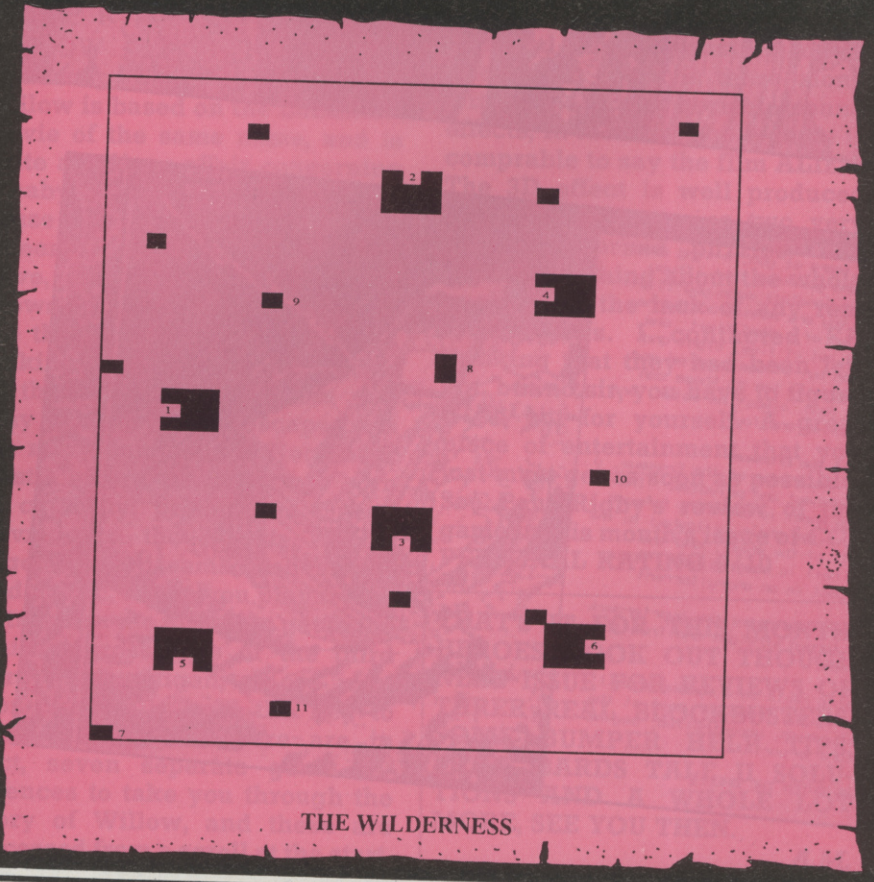
It has been delayed Bo but I am expecting it to turn up very soon. It will retail around £24.99, and is available from Microdeal, Box 240, St Austell, Cornwall.

THE BARDS TALE II SOLUTION CONTINUED

This month: The Wilderness

We rose at dawn to continue our quest. The party proceeded through the wilderness from Tangramayne seeking an old man known for his wisdom. Known only as the SAGE. Our map shows only small buildings and huts, one of them contains the SAGE, After much mapping of cities,(1-6) we found him (at 7) in the severe sw of the map. We paid him much gold, and questioned him about the tombs. He replied that the tombs were located in Ephesus, at the citys centre. " seek the entrance at the Temple Of Darkness". We left for Ephesus......

TO BE CONTINUED NEXT MONTH



THE WILDERNESS

More Adventure!

BY ANDY MOSS!!

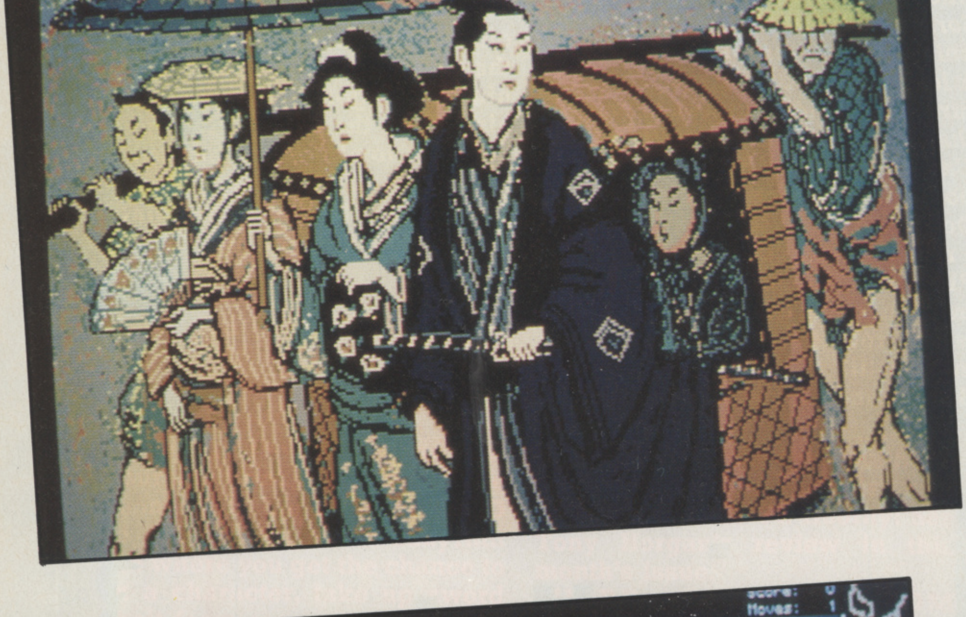
ADVENTURE REVIEWS

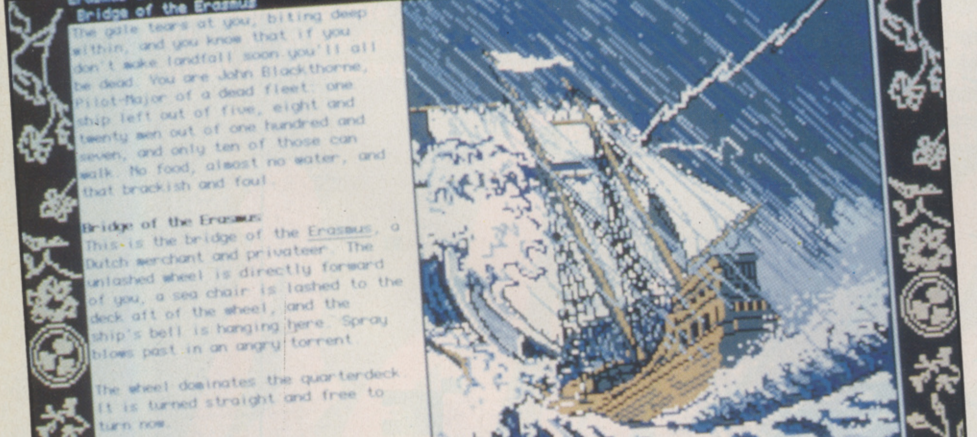
A bumper crop as I mentioned this month, so I will try to get in as many as possible, fear not though for any missed out will be in next month.

SHOGUN

Infocom 64(promised) Amiga

James Clavell's masterpiece has been brought to your computer screens courtesy of Dave Lebling, the master storyteller responsible for LURKING HORROR, ZORK and all the others. This was the first Infocom graphics adventure, and the pictures accompanying the text are rich in Japanese style and detail. The game has been developed with Clavell overseeing every bit of it, (without approval it could not go ahead) and this is evident in the writing style. It includes loads of puzzles in the true Lebling style, and the effort in constructing this one is obvious. You play the part of John Blackthorne in the year 1600, who is a Pilot Major of a merchant ship bound for the East. He is destined to become the first Englishman to set foot on Japanese soil, and is in fact thrust into the maelstrom of Feudal Japan (for reference, see Cinemaware's Lord Of The Rising Sun) where the different Samurai Lords are vying to become Shogun, supreme ruler of all Japan.





```
Erasmus at sea.
Bridge of the Erasmus
The gale tears at you, biting deep
within, and you know that if you
don't make landfall soon you'll all
be dead. You are John Blackthorne,
Pilot-Major of a dead fleet: one
ship left out of five, eight and
twenty men out of one hundred and
seven, and only ten of those can
walk. No food, almost no water, and
that brackish and foul.

Bridge of the Erasmus
This is the bridge of the Erasmus, a
Dutch merchant and privateer. The
unlashed wheel is directly forward
of you, a sea chair is lashed to the
deck aft of the wheel, and the
ship's bell is hanging here. Spray
blows past in an angry torrent.

The wheel dominates the quarterdeck.
It is turned straight and free to
turn now.

The ship heels in a sudden squall,
throwing you from your post at the
wheel, which, uncontrolled, begins
to turn to port.

>STRAIGHTEN THE WHEEL
```

Apart from the graphics, the Infocom system, parser and all, seems to be the same. Even down to the famous Infocom glitches and it seems, as I have found a beauty. On the ship when you are faced with a mutinous crew, you have to order certain members to go up on deck and take their turn as lookouts. When you order Ginsel to 'go up' you get back 'SO YOU THINK GINSEL WALK THE PASSAGEWAY'. Lovely. The most annoying thing about SHOGUN is the time it takes to process your commands, which is most un Infocom like, I can only put it down to all the extra tasks that the system has to cope with for the graphic sections. That apart, all the attention to detail is there, you get a full colour map of the Known World of 1600, and a lengthy missive on the history of the Samurai sword. Don't worry if you havn't read the book, the plot might follow the novel, but the puzzles certainly are unique. Right from the start onboard your ship you are plunged into a world of sickness and brutality, and you realise soon enough that being Mr Nice Guy will not get you very far. This one is destined to be another roaring success from the boys from Boston.

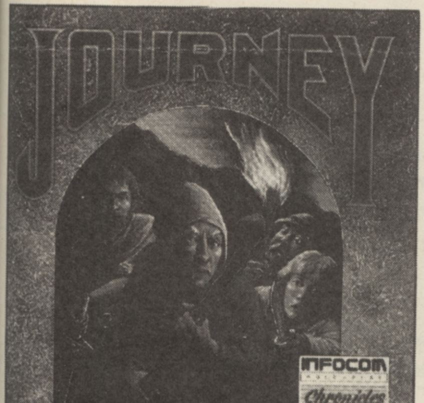
PERSONAL RATING.............. 9/10

JOURNEY

Infocom Amiga, 64(soon)

There comes a time in a reviewer's life when something comes along that makes everything appear roses. The world is suddenly a better place, and I walk around with a smile on my face. JOURNEY is a wonderous piece of software that captivates you from the start and doesn't let go. Penned by Mark Blank, creator of Zork and Enchanter, JOURNEY is a different type of adventure than those with which you are familiar. Written in a style that sees the story presented actually through one of the character's eyes, the tale unfolds before you and the challenge is to decide which path to take, or where to explore, and what actions to take where. I soppose the system is similar to the Level 9 'Adrian Mole' games, but much, much slicker and more polished.

JOURNEY is written in true Tolkenien style, using the now familiar 'the land is in turmoil, crops are blighted, disease and famine ravage the once properous people, and evil has fallen over the land'= type scenario. The only hope for the people is to find the geat wiz Astrix (Gandalf?) and convince him to return from his solitude and lend his help. A party is assembled comprising some four hardy souls including Tag,(Bilbo?), an apprentice food merchant who has agreed to not only act as provisions manager but also keep a diary of the journey, hence the words that you see after each action that you decide to take. Tag can be changed for your own name if you wish, but you may find yourself making derogatory comments about yourself, if you see what I mean. Actions are simple, all you do is highlight the word you want to use, which at the beginning will be either PROCEED or ENTER (the shop), after that other action words will appear depending on how the story progresses. Ant action you take will advance the story towards one of its many endings, but there is only one ending that is the best, the destrucion of the Dread Lord (Sauron?).



There are a great many puzzles in the game, which are not the solve or die variety, but the 'solve this and it will help you later' type. If you do get frustrated, and end the session, you can call up a 'Tags musings' file, which uses hindsight to give you clues as to what you should have done like 'maybe looking back we should have explored further up stream' etc. There is a save game option, but Infocom urge you not to use it too often, just enjoy the game and see the consequences of your actions whatever the outcome. The graphics are very pretty and convey the style and atmosphere perfectly. You feel as if you are reading a novel as you are drawn right into the story itself. Brilliant.

PERSONAL RATING 10/10

WILLOW

Mindscape 64/Amiga

Willow is based on the Lucasfilm movie of the same name, and is quite a tedious affair concerning a baby, Elora Danan destined to cause the downfall of an evil Queen. If only Elona can be kept alive, safe from peril until she grows up, she will succeed. There are three characters involved in making this happen, the mother of the child, Ethna, whom you play when trying to escape from the maze dungeons of Nockmaar Castle where the child was born in captivity; prisoner of Queen Bavmorder, the farmer Willow Ufgood, who dreams of adventure and magic, whom you play trying to traverse the forrest to get to the Daikini crossroads or the third hero Madmartigan, whose warrior like skills hold the key to Elora=s survival. There are in fact, seven seperate game sequences to take you through the story of Willow, and these are accessed from a scroll at the start.

The graphics are Dungeon Master style, and in most cases you can come to a bitter end by just entering a room with a trap. No clues are given; it's just a case of mapping by trial and error. When you are caught, the program takes an age to reload for another go. It is all rather long winded and in my mind poorly coded. Yes, the graphics are pretty, but the gameplay is unconvincing. It is not one of Mindscape's better efforts.

PERSONAL RATING 4/10

PROJECT FIRESTART
ELECTRONIC ARTS 64

Billed as a horror movie in outer space.

Project Firestart is a 4 disc sides animated adventure that just oozes quality in all departments. The research ship Prometheus has not responded to calls, something is wrong, so the System Science Foundation has assigned you to clear up the mystery. All you get, is a rough map of the ship to start with and a laser, and a lot of hope. As you beam aboard, you realise its going to be messy. There are dead bodies evrywhere, and they all need to be examined for useful objects, even the bloody torn up, mangled and disgusting ones! The music score is tense along with some pretty horrible sound effects, in fact the whole game is comprable to say the film ALIEN. The 3D effect is well produced and there are one or two very cleverly worked puzzles. The interseting thing about the whole package is the lack of any real instructions. I contacted EA thinking that they had been left out, but no sir, you have to figure it all out for yourself. A great piece of entertainment that you just must get as soon as possible. See Paul Rigby's review of the game in this month's issue of *CCI*.

PERSONAL RATING 9/10

THAT'S IT FOR THIS MONTH, HEROES. LOOK OUT THOUGH NEXT ISSUE FOR REVIEWS OF THREE REAL BLOCKBUSTERS, SOME BUMPER HELP TIPS, MORE BARDS TALE II SOLUTIONS AND A WHOLE LOT MORE, SEE YOU THEN.

A.M.

HORGAN'

Is this a map of Stormlord you see before you? Yes, with compass and parchment in hand, I, my nephews, braved the maggots, the slimies and the dark knights to bring you these plans of Stormlord's four deadly lands. Not only has old Uncle Horgan cut no corners to bring you the best in game survival techniques, your fellow disciples have regained their faith, flooding your guru in a deluge of pokes and tips. So numerous are these, that allocated space cannot accomodate their entirety. Ritual suicide need not be initiated, for those unfortunate enough to have been ommitted from this month's sermon will see the light (of day) next issue. Various tokens of gratitude are to be recieved by those responsible for the most inspiring contributions.

Denaris

The following hacks were sent to me by A. Knight, so chivalrous in his ways, that he refuses to name his source who wishes to remain anonymous. Enter it before loading the game with both players granted infinite lives.

```
0 PRINT CHR$(147)
1 FOR I=304 TO 333:READ A$
2 L=ASC (LEFT$(A$,1)):L=L-55:IF L<5 THEN L=L+7
3 R=ASC (RIGHT$(A$,1)):R=R-55:IF R<5 THEN R=R+7
4 V=(L*16)+R:C=C+V:POKE I,V:NEXT
5 IF C<>2918 THEN PRINT "DATA ERROR!":END
6 PRINT "SAVE LISTINGS FOR FUTURE USE"
7 PRINT "SYS 304 TO START"
10 DATA 20,56,F5,A9,01,8D,67,08,A9,40
11 DATA 8D,66,08,4C,0E,08,A9,AD,8D,FC
12 DATA 35,8D,64,36,8D,24,36,4C,99,08
```

Alternatively, hack cartdridge users could freeze the game and enter:

POKE 13820,173
POKE 13924,173

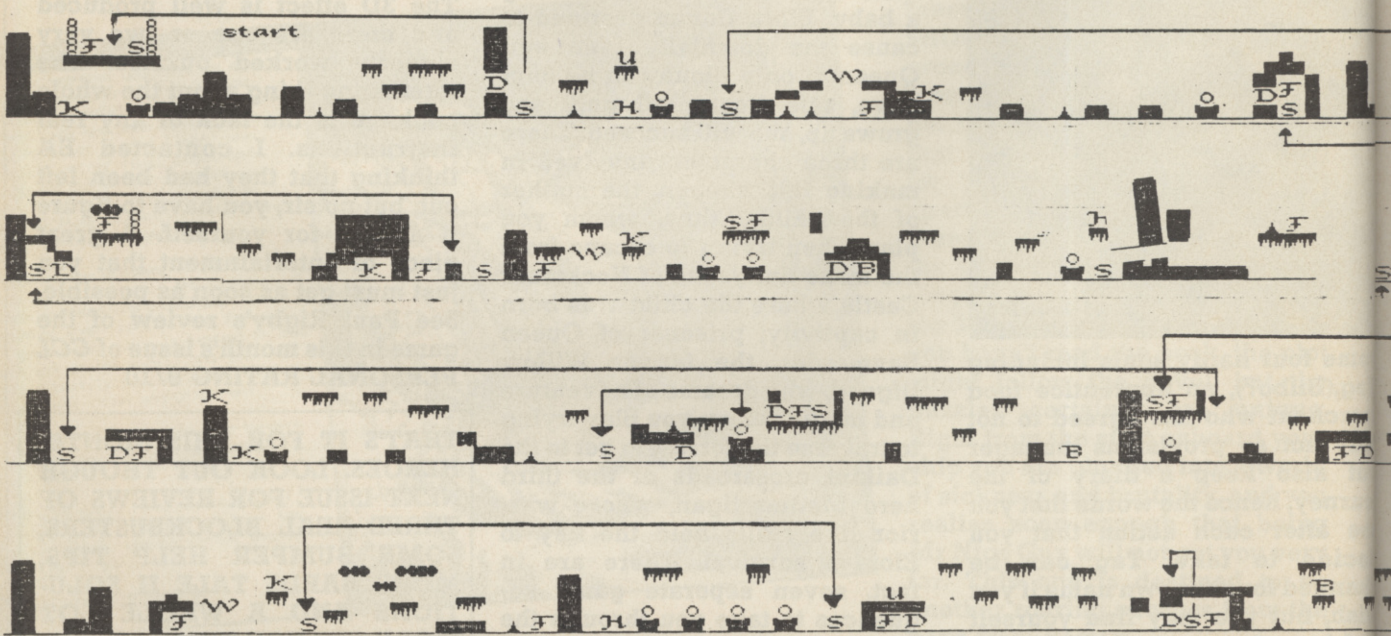
F...FAIRY
S...SPRINGBOARD
B...BOOTS
W...WASPS
K...KEY
D...DOOR
H...HONEY
U...UMBRELLA

The Munsters

Reset the game and enter:

POKE 2048,216:POKE 2049,120: POKE 2050,32

Now take your pick from these



'S HINTS

two:
POKE 15543,169 (infinite energy)
POKE 15614,169 (infinite spells)
SYS 2048 (restarts the game)

Danger Freak
When asked for the date, type in **170470** (the programmer's date of birth no-doubt) to enter the cheat mode. Thanks to Russel Gowrie and Tony Hurst for that one.

R-Type
Mark Reynolds has found that reseting the game and entering:
POKE 12865,173
POKE 12957,173
SYS 32768
gives infinite lives.

Xenon
Take Casey Gallacher's advice reset the game and enter:
POKE 26356,173
SYS 20048

Ninja Commando
Another from Casey:
POKE 10457,173
SYS 14848
If you fancy your name at the top of the high score table, just reset and type **SYS 13810**

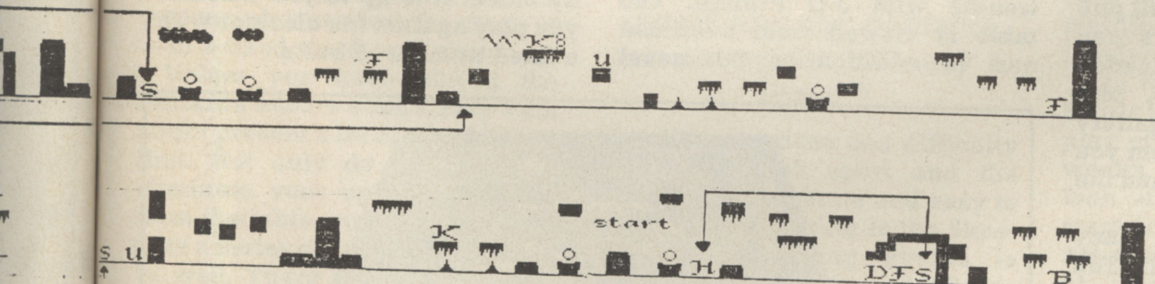
AMIGA

Falcon
These couple of cheats should make the going a little easier, as supplied by Marco Cinnirella.
1. When the cannon is selected, holding down the CTRL and X keys simultaneously will replenish your ammunition.
2. Holding down the CTRL, X and Z keys usually causes eight AIM 9Ls to appear.

Dragon's Lair
Sit back and watch the game play itself right through. Just hold down ESC, R, /, L, N, 7 and press fire while the credits are displayed.

As we all grab what we can from the goodie-bag of life, it becomes increasingly apparent that reward does not come without venture. That, my loved ones, is the way it is with Horgan's Hints. Venture boldly, and I will delve into my own material goodie-bag, speeding my findings to your abode by nature of The Queen's couriers. Submissions with the following inscription should be dropped into a post box; my minions will do the rest.

Uncle Tony Horgan
Holy Horgan's Hints
CCI
40 Bowling Green Lane
LONDON
EC1R ONE



C64

CRISP

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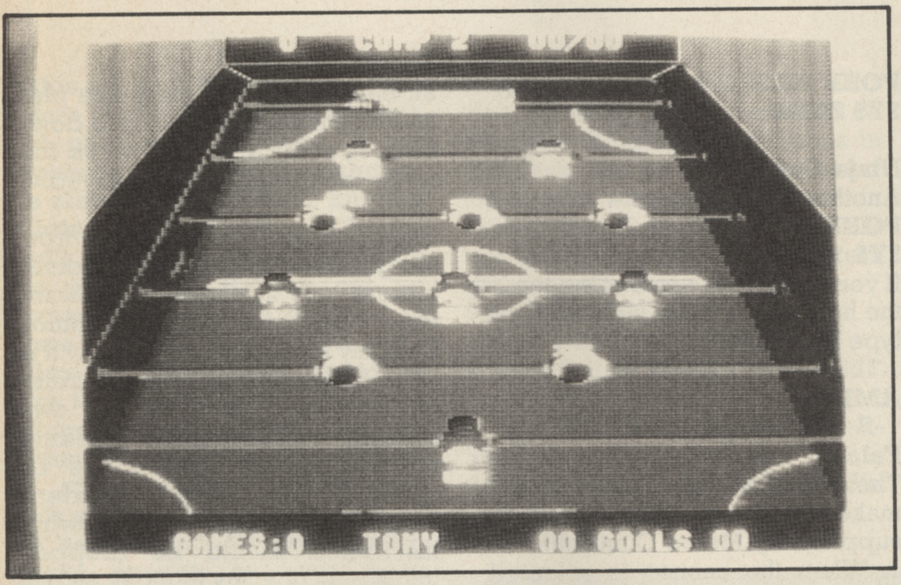
CLUBHOUS



Mindscape

So many sports simulations have been released over the last few years that you are probably wondering whether there is actually anything new left to simulate. Most outdoor sports seem to have been covered by the Epyx stable (among others). Mindscape have headed indoors — for the clubhouse.

In this all-American version of what we would probably call pub games, up to four players can take part in six separately loaded events: foosball, billiards, pinball, skeeball, shooting gallery and crazy pool. In all of them you can alter the speed of play and the difficulty level.

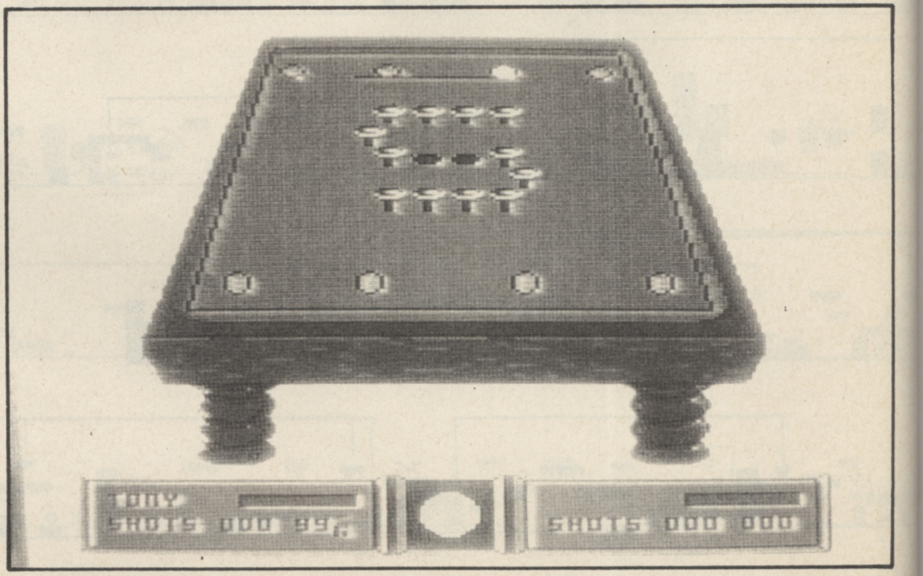
Foosball is really just a fancy game for table top football. You control three rods of players which you can move from side to side to achieve exactly the right position for kicking the ball. You automatically control only those players nearest the ball and can select the number of play-offs and goals needed to win a match. You play with the computer or one of the other competitors.

Billiards is on of America's more popular sports and Mindscape have included two popular versions of the game: Carom billiards, which is played on a table with no pockets; and English billiards which takes place on a table with six pockets. There are a maximum of three balls on the table at any one time and you can select the direction, spin and power of your shot in addition to the friction of the table and the score or shots required to win.

Arcade junkies should have no trouble with 3-D Pinball. The table is viewed from overhead and in addition to the usual flipper movements, targets and bonus lights, pushing the joystick backwards and forwards makes the table tilt. Be careful of tilting too often though — you'll lose the ball in play and any bonus you might have scored.

> ***"Be careful of tilting too often though — you'll lose the ball in play and any bonus you might have scored."***

Unless you are a fan of club sports you probably will not be familiar with Skeeball. It is actually pretty much like archery, but it uses balls instead of arrows. You roll your ball up a ramp and into the rings that form the target. The nearer the centre it rolls the higher you score. A floating crosshair allows you to position the ball, though you have to react quickly if you do not want to miss by miles! It is up to you whether you play against the clock or with a fixed number of balls.



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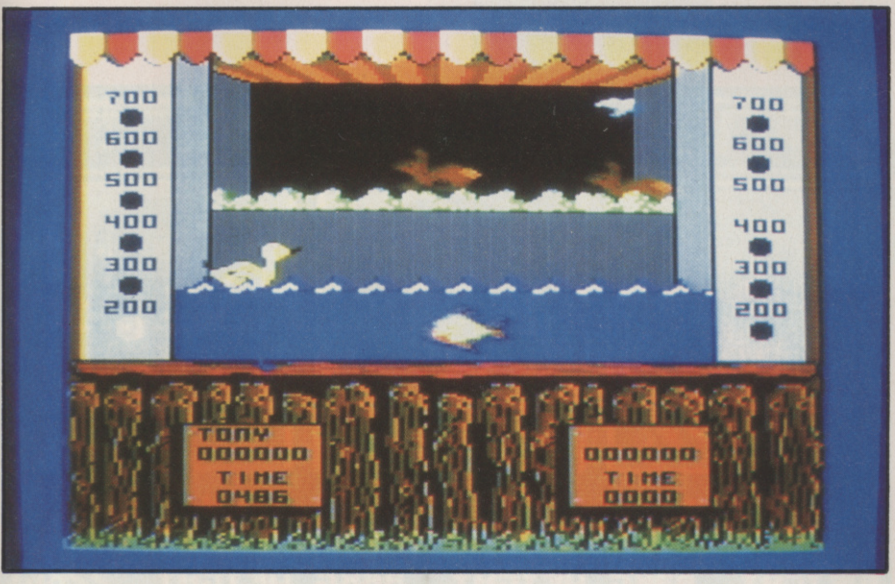


The Shooting Gallery pretty much speaks for itself. Ducks, targets, rabbits and frogs move across the screen fairground style and it is up to you to position the constantly floating crosshair to hit them. For added realism you can alter the speed, weight and recoil of your gun. As in Skeeball, you can play against the clock or with a fixed number of shots.

Unless you have played the Billiards events a lot, Crazy Pool might present a bit of a problem at first. Not only do you have to eliminate your opponent's balls from the table, you have to negotiate a series of on-table obstacles as well. There are four different pre-set table designs which have bumpers and pockets in various positions on the baize and you can create and save your own design using the construction set.

The graphics are colourful and accurate, though not all that detailed, but the sound is probably the biggest letdown. Apart from one or two spot-effects and a grating tune in the shooting gallery there is very little to listen to. Even the click of the snooker balls sounds more like knitting needles!

The gameplay itself though, works well. There is an impressive list of options and difficulty levels for each sport and the controls are accurate and easy to learn. The targetting in the Skeeball and Shooting events is particularly realistic and it helps to have a computer opponent with skill levels that you can grade.

> ***"There is an impressive list of options and difficulty levels for each sport and the controls are accurate and easy to learn."***

It is almost impossible to review any new sports simulation without comparing it to one or other of the better Epyx titles. Though Club Sports is fairly good fun to play in its own right, it does not really match up to the high standards that earlier Epyx games like Summer Games have set, mainly because there is not all that much to the different events. It is very enjoyable playing through all the events the first time around (if you wait for the multiload) but they do not really involve all that much skill.

On the whole, American Club Sports is one of those games you'll play often for the first couple of weeks, and then probably never look at again. If that is all you want from a sports game, fine. If not, you might be happier looking at some individual pinball, snooker or billiard games and seeing what they have to offer.

Graphics	***68%***
Sound:	***35%***
Playability:	***73%***
Overall:	***69%***
Price:	***£9.99 (cass)*** ***£14.99 (disk)***

Strange sports ...

American Club Sports may be an unusual but if you had to name the most unusual sports simulation ever produced, it wouldn't necessarily come top of the list. Epyx, widely acknowledged for really setting the sports craze rolling have produced some pretty way-out events themselves. California Games featured the Foot Bag, the well known sport of juggling with your feet and other games have featured log-rolling and bull-taming. Activision's Galactic Games had perfectly sane people taking part in head throwing and the 100m slither while in Electronic Arts Ugh lympics mate toss and fire starting proved among the most popular events. Table Football has appeared once before, in Prism's pub games and even Gremlin have had computer owners all over the country juggling plates and jumping across dykes. Beat that!

C64

MEGA

Speedball

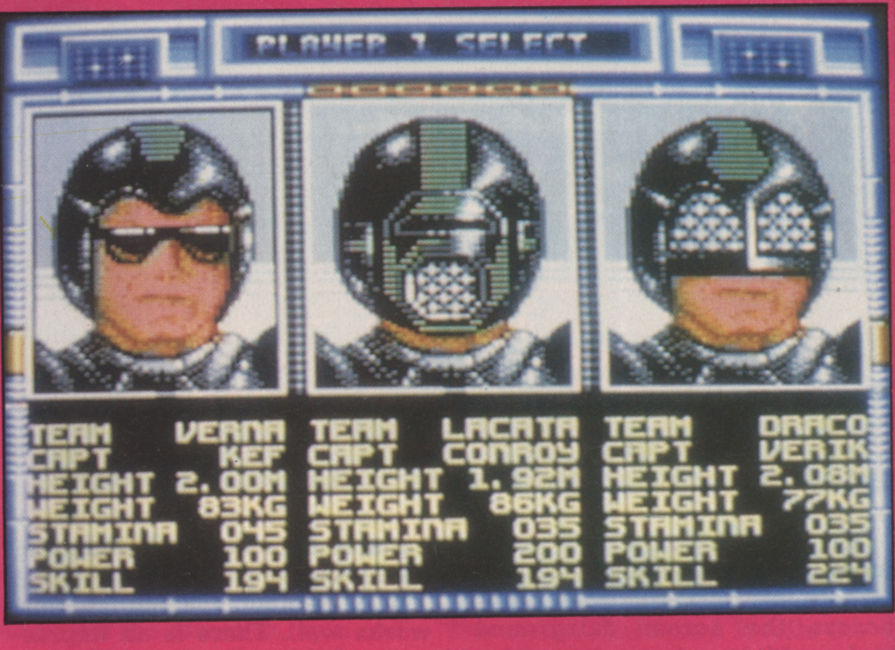
Image Works

Games like Speedball, originated exclusively for their 16-bit formats, must account for an enormous amount of Amiga sales. Just a quick round of this future sport can be enough to instill that belief that you *must* have an Amiga! Then you remember, an Amiga 500 could set you back £400. Good old Image Works have come to the rescue, and now give you a cheaper option: Speedball for your 64.

My expectations for a quality 64 version were not high. It pays to be sceptical; that way you are never disappointed. This time, I am glad to say my pessimism was unfounded, as Pantheon Software have done the Bitmap Bros proud in their conversion. With a drastic reduction in available memory, you might expect a compromise in some of the original's features. In fact, the entire gameplay has come across intact.

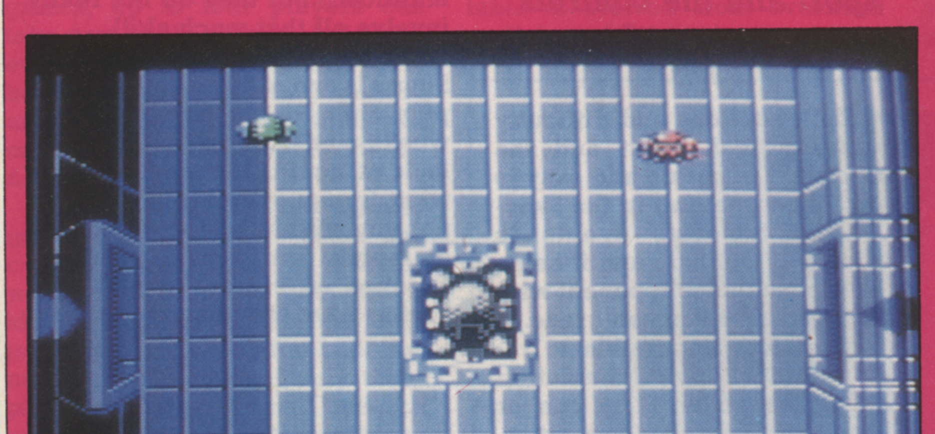
Speedball is a vicious sport of the future. It is played in an enclosed arena of four steel panelled walls. Half way up the wall at both ends is a slot. The object of the game is to slam the solid steel ball into your opponent's slot as many times as possible in each game, whilst defending your own goal. Various formations of glazed hemispheres fixed to the floor deflected the ball, useful for outwitting the enemy. Another trick is to make use of the side-warps. Throw the ball into one of these two doors and it reappears on the opposite side of the arena. Dirty is the only way to play this game. With no recognition of fouls, players are free to lay into any opponent in the game, whether or not it involves getting hold of the ball.

The fire button has a few functions. When in possesion, it launches the ball in one of two ways. For shooting, a quick tap will throw the ball at the exact height of the slots. A longer press lobs it over the players' heads, handy for making a long pass. When it comes to reclaiming the ball from the opposition you have



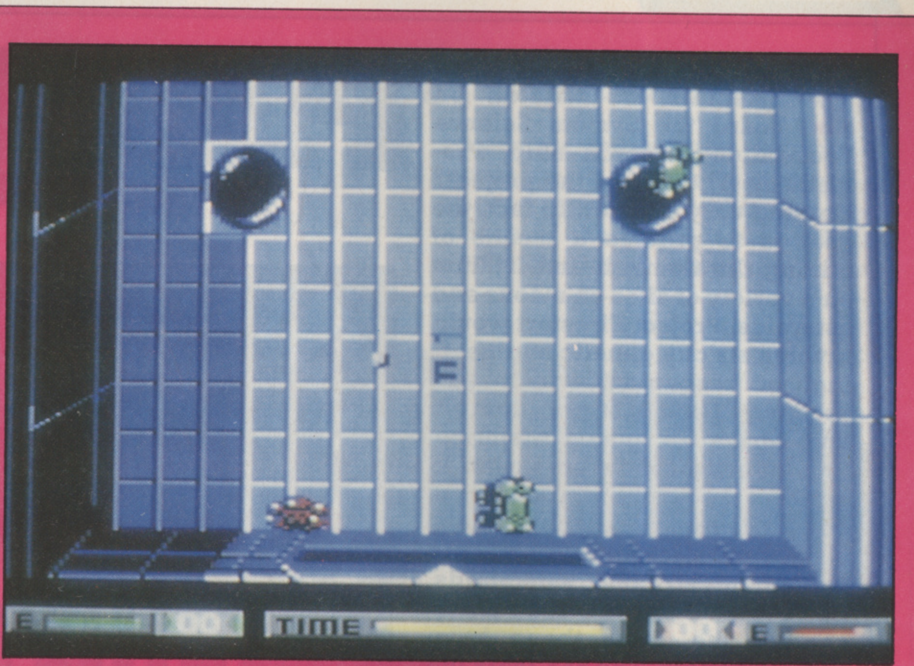
PLAYER 1 SELECT

TEAM	VERNA	TEAM	LACATA	TEAM	DRACO
CAPT	KEF	CAPT	CONROY	CAPT	VERIK
HEIGHT	2.00M	HEIGHT	1.92M	HEIGHT	2.08M
WEIGHT	83KG	WEIGHT	86KG	WEIGHT	77KG
STAMINA	045	STAMINA	035	STAMINA	035
POWER	100	POWER	200	POWER	100
SKILL	194	SKILL	194	SKILL	224



Meet the Bros ...

The Bitmap Brothers somehow managed to build a rock solid reputation after the release of just one game! Ever since Xenon, which came out through Melbourne House, the brothers have become possibly the most sought-after team of 16-bit games programmers. Image Works Mirrorsoft's up and coming label must have seemed the obvious choice of publisher for Speedball, as the boys themselves are extremely image-concious, paying great attention to backlighting and dominant camera angles in all their publicity shots. Megablast, the sequel to Xenon, is due for release by Imageworks any day now. The boys plan to make an assault on the pop charts with their album, cassette and CD which should be ready for launch in the autumn.



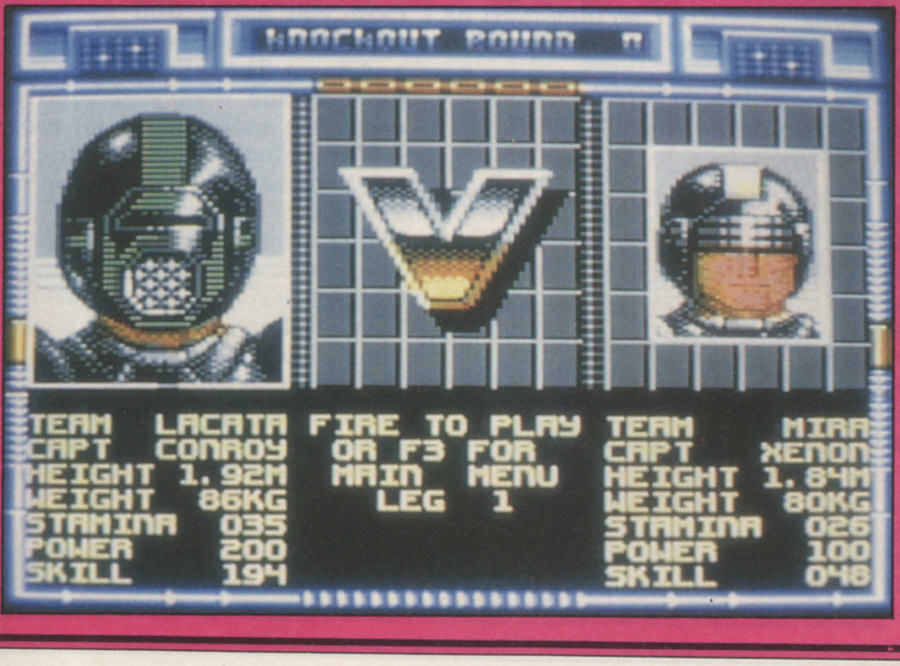
two choices. Either run at the player in possesion and slide him, or just punch him in the face at close range. You also control the keeper. Line him up with a shot and he instinctively punches it back up the arena. Leave it too late and you will be forced to lunge for the ball, usually to see it shoot out of reach and into the goal.

Various bonuses pop up from the tiled floor during the game. Picking them up grants you one of many benefits, usually boosting your team's performance or toning down the opposition. Credit tokens can also be collected and saved from one game to the next. After the teams are called in for full-time, you can use these credits to bribe the officials into awarding extra goals, extra time, or again altering either team's performance in your favour.

The only area in which the 64 graphics lose out to their Amiga counterparts is the sprite definition. In the original you could make out the players beating each other up, but the 64's are sometimes a mere jumble of pixels. A few hi-res overlays would have done the trick. All the rest of the graphics are as good as identical (bar resolution), including the portraits of the team captains. Likewise, David Whittaker has recreated his music and sound effects with amazing fidelity.

There is plenty of incentive for the single player, who can choose to enter either a league or a knockout competition. As usual, a more varied game results from a two player head-to-head. My only concern is for its long term appeal. There is little variety in the tactics needed to win, so you can find yourself making the same moves too often, though the constantly altering patterns of deflector domes successfully breaks down the repetition to a degree. Most importantly, Speedball on the 64 plays almost identically to the classic Amiga version. Envious 8-bitters will not be disappointed.

T.H.

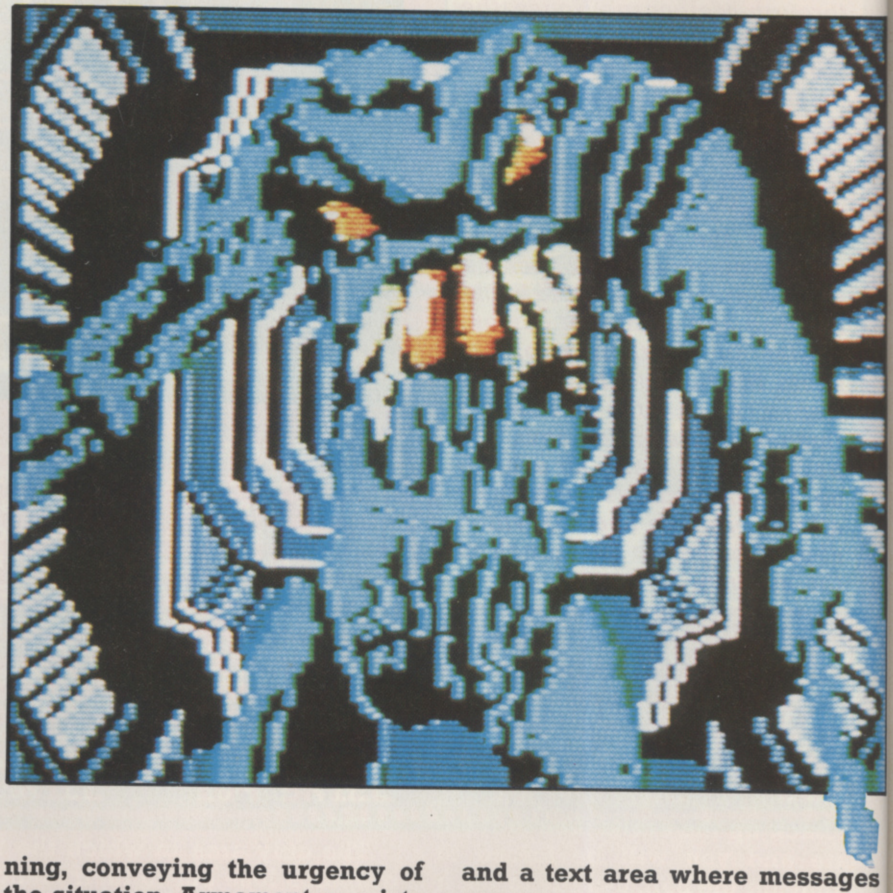


```
KNOCKOUT ROUND

TEAM   LACATA   FIRE TO PLAY   TEAM     MIRA
CAPT   CONROY   OR F3 FOR      CAPT    XENON
HEIGHT  1.92M   MAIN   MENU    HEIGHT  1.84M
WEIGHT   86KG      LEG 1       WEIGHT   80KG
STAMINA   035                  STAMINA   026
POWER     200                  POWER     100
SKILL     194                  SKILL     048
```

Graphics:	79%
Sound:	86%
Playability:	79%
Overall:	85%
Price:	£8.99 £12.99

PROJECT



February 13, 2066. Project Firestart is initiated on board the System Science Foundation research ship, Prometheus. The aim of the project? Nothing very sinister. In fact, the goal is to provide a means of mining the titanium and iridium on a variety of sites on moons and asteroids. Project Firestart would involve stricky genetic engineering, or reshaping, which will produce a band of strong, durable and, above all, placid lifeforms. The latter would be employed to perform the actual mining operations. The first generation geneticists were allowed to work only under the strictest safeguards. However, all recent attempts to contact the Prometheus have come to nought. The SSF fears the worst. They want to know what is going on and what, if anything, went wrong. Someone must go up there to snoop around. Need I say more?

The game comes on two disks (four sides of data) and includes a command summary card detailing the game's instructions and displaying a map of the Prometheus. The opening sequence to Project Firestart is informative and atmospheric and gives all of the necessary background as well as the present situation. The graphics are excellent, with good animation sequences, and the sound is also atmospheric — building the tension in dramatic fashion.

Scenes cut to the relevant areas of the plot and then, finally, to you being briefed by your boss, Chief Ricker. He outlines the situation emphasising that he will give you two hours to flick the ship's self-destruct switch and get off. Otherwise he will assume you have suffered the same fate as the rest of the crew. The order will then be given to destroy the Prometheus by external methods. Ricker provides you with a map of the ship with your route to the bridge, which houses the self-destruct button, highlighted. You are then ferried to the stricken Prometheus.

The actual game takes place in 3-D isometric graphic form. You control your character via a joystick. Character animation is good. He is permeanently running, conveying the urgency of the situation. Armament consists of a low power laser (so as not to blow a hole in the side of the ship) and you may carry a maximum of two. Lasers have a limited power supply, however, so they must be replaced when they expire. Additional weapons can be found around the ship. Personal damage, as well as laser power, is measured by a bar at the base of the screen. In addition other displays include a clock/timer showing how long you have left and a text area where messages appear.

> *"The majority of the rooms are graphically pleasing, such as the hologram room, while others are quite humorous — the Prometheus has a room full of arcade machines."*

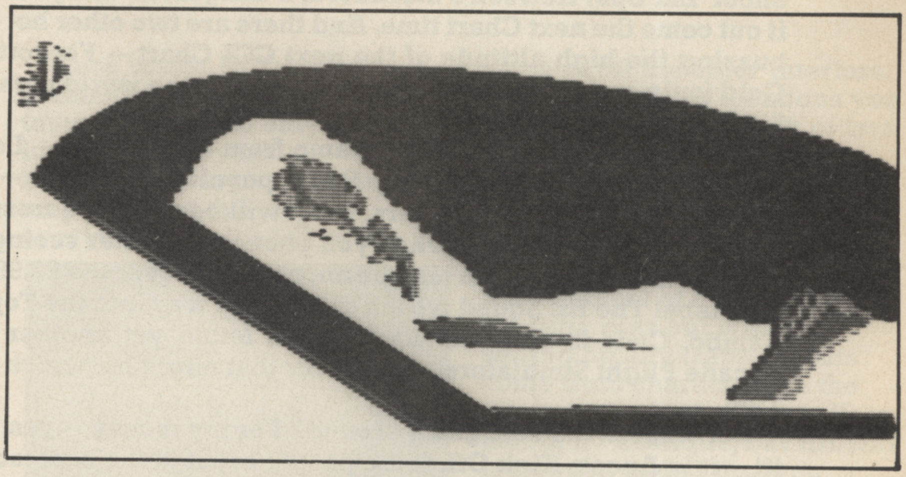
There are four levels to the ship, the bridge being on level four. However, you would be wise to search all of the other rooms in case you might find useful objects such as lasers, I.D. cards and so on. The latter are useful to enter rooms with restricted access. The majority of the rooms are graphically pleasing, such as the hologram room, while others are quite humorous - the Prometheus has a room full of arcade machines. It certainly sounds like an arcade too! Searching rooms takes the form of moving your character as close as possible to the object or area in question. This may succeed in bringing a response on the text window asking you for an action, offering an object to be picked up and so on. Various objects can be manipulated such as switches and doors while computers can be accessed for further informa-

T FIRESTART

Electronic Arts

The 'destructive' creators ...

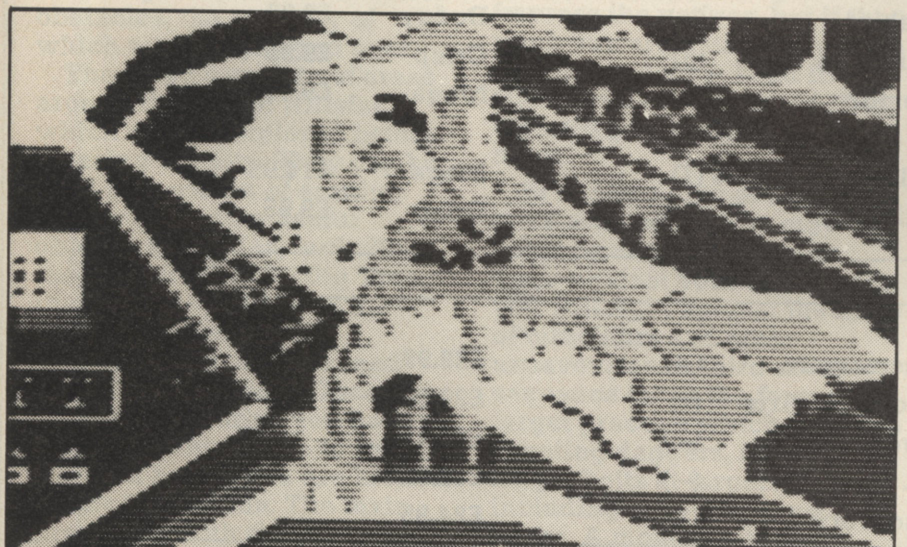
Project Firestart, which has many similarities to the film 'Alien', was programmed by Dynamix, who hail from Eugene, Oregon, USA. They are the same team who have brought us Articfox, Skyfox II, Caveman Ugh-lympics and the recent Abrams Battle Tank. They say that their goal is to develop software that will 'turn earth into an inter-galactic bus depot'. What next? Bus conductors with five arms? Very handy.



tion.

Spot effects include minimal sound and animation in a variety of rooms. In addition, you may be treated to a dramatic close-up, along with suitable music, of a dreaded monster, a dead member of the crew and so on. Incidently, it has to be said that some of the graphical scenes are rather gruesome. Blood and dead bodies lie everywhere, with limbs strewn, etc (you know the sort of thing). Some of the close-ups include some animation of their own. When you die, for example, you see your head hitting the deck amongst a pool of blood. While it is easy to criticise the programmers for the wanton display of carnage, I believe the graphics serve a purpose within the confines of the game itself and the science fiction scenario it portrays.

As you travel the many corridors of the Prometheus you will realise that there is more to this mission than simply hitting the self-destruct switch, apart from destroying the hoards of monsters that regularly assail you. There is the damsel in distress, for example. Yes! You must rescue the fair maiden before the monsters get their claws into her. However, is she the only person who has survived the ordeal?



Project Firestart is a well structured program. It is, as Electronic Arts claim, very much like a horror movie in outer space. The various effects such as close-ups, panning and dramatic music all distinguish Project Firestart from other 3-D isometric games, contributing to the tension and atmosphere of the situation while making you feel involved and placing you firmly on the edge of your seat.

P.R.

Graphics:	*88%*
Sound:	*80%*
Playability:	*84%*
Overall:	*85%*
RATING:	*MEGA*
Price:	*£14.95*

Charts

Chart Chattering Events

Ocean are claiming that they are going to put Robocop up for the Guiness Book of Records as the longest running Number One ever in the history of the U.K. charts! It is *still* up there after what seems like forever. But the whisper is that it really isn't going to last till next month. The fast rising Speedball smashing in as the top new entry at Two and Andrew (King of the Shoot 'Em Ups) Hewson's Stormlord, a dangerous entry at Four, will be fithting it out come the next Chart time. And there are two other hot ones to watch out for buzzing the high altitude of the next CCI Chart – Forgotten Worlds from U.S. Gold (only one game in the Top Ten, what is the world coming to?) and Virgin's Silkworm (great on the Amiga).

The 16 Bit Chart has a new Champ from an old team – Lord of the Rising Sun from Cinemaware, displacing E.A.'s popular Populous – up to 50K sales in Europe and for our U.S. readers, yes it will be coming across the pond and never mind what E.A. tells you when you phone them after seeing the review in CCI!)

All conquering Ocean may be about to take over the £2.99 world too with their new label The Hit Squad which crashes its way into the Top Spot with its first try, Rambo. Code-in-de-Nose-Masters has found yet another Sim – this time it's Arcade Flight Simulators – whatever that might be, which climbs in at Number Two.

But what is the best game around? For my money – yes, I might even pay for it! – it is Anco's Kick Off. Some people say it is the best footsie game of all time – even better than the real thing! Perhaps they should sell it for around £300 and give a free Amiga away with it!

Z.M.S

GAME TITLE	COMPANY	LAST MONTH	RATING	PRICE
1. Robocop	Ocean	(1)	Mega	£9.95
2. Speedball	ImageWorks	(–)	Mega	£9.95
3. Denaris	U.S. Gold	(2)	Mega	£9.95
4. Stormlord	Hewson	(–)	Mega	£9.95
5. Blasteroids	Imageworks	(4)	Crisp	£9.99
6. Startrek	Firebird	(–)	Dodgy	£9.99
7. Real Ghostbusters	Activision	(5)	Crisp	£9.99
8. Super Scramble	Gremlin	(–)	Mega	£9.95
War in the Middle Earth	Melbourne House	(7)	Mega	£14.95
10. R Type	Activision	(–)	Crisp	£9.95
Amiga				
1. Lord of the Rising Sun	Cinemaware	(–)		£29.99
2. Populous	Electronic Arts	(1)		£29.99
3. Blood Money	Psygnosis	(–)		£24.95
4. Denaris	U.S. Gold	(–)		£19.95
5. Sword of Sodan	Discovery	(2)		£24.95
Budgets				
1. Rambo	The Hit Squad	(–)		
2. Arcade Flight Sim				
3. Gauntlet II	Kixx	(–)		
4. Bombjack II	Encore	(–)		
5. World Games	Kixx	(4)		

C64

CRISP

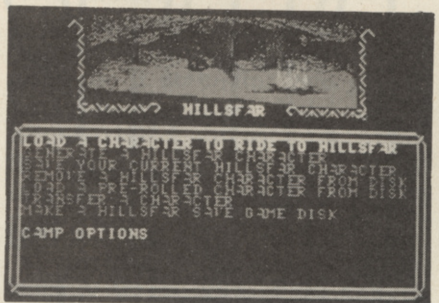
HILLSFAR

Hillsfar is the third release in SSI's Advanced Dungeons and Dragons association with TSR Games. The game actually revolves around the city of Hillsfar and its outlying areas. You take control of a single character who can be created as one of a number of character types, such as a fighter or a cleric. Having done that you leave your camp to venture to different areas of the Hillsfar "world".

To move around the area you are shown a map with various routes upon it. The routes you may take, from your starting point, are highlighted. The next stage is the journey to your appointed destination. This introduces the first of the arcade-type sections into the game. You must control your horse through a parallax scrolling landscape which avoiding a number of different obstacles, the majority of which must be jumped over.

There are a variety of areas around the city of Hillsfar which can be explored before entering the city. They can be used as a means of earning money or finding useful objects. Examples, including the Shipwreck, The Big Tree, the Hermit's Place and the Ruins all change your perspective to an overhead Gauntlet-type view. Once inside the location you have a short amount of time to search the area before you are kicked out by the guards. The main drawback with the interiors is that they all look the same, except for a different arrangement of corridors, rooms and treasure chests. This reduces the atmosphere straight away because, for example, the Shipwreck looks nothing like a Shipwreck.

Once inside Hillsfar you are presented with a map of the town but you will only find the identity of the various buildings by exploration as the map does not tell you everything. To the left of the map is a ground view of the city, below that is your character's statistics. Below the map is a box containing messages. Central to the town is a relatively large Castle and nearby is a Pub in which you can find information from the Barmaid or by listening to gossip. You can "Brag" to impress the natives, but if they think you are a liar you will be shown the door — head first. Gambling, via Darts and Arm Wrestling may improve your funds.


HILLSFAR
LOAD A CHARACTER TO RIDE TO HILLSFAR
GENERATE A HILLSFAR CHARACTER
SAVE YOUR CURRENT HILLSFAR CHARACTER
REMOVE A HILLSFAR CHARACTER FROM DISK
LOAD A PRE-ROLLED CHARACTER FROM DISK
TRANSFER A CHARACTER
MAKE A HILLSFAR SAVE GAME DISK
CAMP OPTIONS

In another area of Hillsfar is the Arena which you may enter by choice or be sent there against your will. Inside you will fight against the likes of minotaurs and other unsavouries. A third arcade sequence takes the form of target practice which involves shooting daggers, arrows or magic bolts at targets including rats, birds and sacks. A monetary prize is yours for the taking if you achieve a top score. Many of the houses and other establishments, such as the Sewers, Healers, Temple and so on, throw you back into the Gauntlet runaround which, not surprisingly, looks exactly the same as all the other interiors.

Whilst in these locations you may have to pick a lock or two to open a chest. This can be done using objects found around Hillsfar or by hand which forms the basis of the final arcade game of triggering the tumblers of a lock before the time runs out without setting off any traps. Quests come from characters in the city such as in the Magic User Guild, for example, but Hillsfar is so open ended that you could easily play it as a series of mini-arcade games.

Hillsfar is a good effort at producing what I like to call the Computer Role Playing Arcade Game (CRPAG). However, I think it falls short of the quality of Times Of Lore. It is a pity that the interiors of the locations are so bland as the game tends to lose a lot of credibility and so becomes a little monotonous, although the various arcade sequences liven the game up somewhat. Do not buy Hillsfar if you are after some serious role-playing; it cannot compete with the big boys. However, for a spot of light entertainment you could do far worse. *Note:*

Hillsfar is currently available only in the U.S. Contact:

Electronic Arts, 1820 Gateway Drive, San Mateo, CA 94404.
Tel: (415) 571-7171.

P.R.

Graphics
Sound
Playability
Overall
Rating
Price

C64

Naff

THE DEEP™

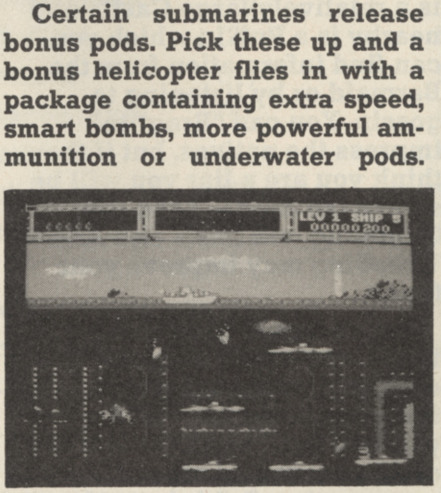
US Gold

Unless you have spent a lot of time cruising round the arcades in Tokyo, you probably will not know that The Deep started out life as a very popular Japanese arcade machine. It never really caught on here, but anyone who can remember the obscure oldie, Depth Charge, will have the general idea.

If your memory can't quite stretch all that far back, here is a quick rerun of the plot: fleets of enemy submarines are heading towards your native shores and threatening your people with destruction. Unless you and your trusty warship manage to halt their advance with some clever shooting, your homeland and everyone in it is doomed.

The levels are divided into a main action scrolling section followed by three shorter sub-sections. The main section shows the warship under attack from enemy submarines firing mines, heat seeking torpedoes and cruise missiles. Particularly dangerous weapons include mines which float on the surface of the water and submarines which surface suddenly to fire unavoidable missiles. All you have is a supply of depth charges, so the gameplay is mainly a case of dodging and firing.

Certain submarines release bonus pods. Pick these up and a bonus helicopter flies in with a package containing extra speed, smart bombs, more powerful ammunition or underwater pods.



You need to use these pods to collect tokens from the sea-bed. Once you have them all, it is time for the transition sections.

During these sections, you attempt to blow up an enemy ship using missiles controlled by pressing the fire button and timing the release. You must bomb a huge submarine by dropping charges down its hatches and protecting small boats using a crosshair.

All this might have looked very sophisticated three or four years ago, but by today's standards The Deep just does not have enough gameplay to keep anyone hooked. Technically you cannot really find fault with what there is of the game - apart from a few ropey moments, the collision detection is fine and what there is of the scrolling is fairly smooth - it is just that there is not enough of it.

News from the Deep ...

Even though U.S. Gold may have slightly missed their target with this subterranean venture, their games still have a reputation for quality and excitement. You can keep up on all the latest developments with the U.S. Gold Bulletin Newsletter. Contact U.S. Gold Club, Units 2/3 Holford Way, Holford, Birmingham B6 7AX for details.

The graphics are basic and lack detail while the sound is limited to an irritating clanging sound and a few primitive explosive effects. The gameplay itself involves nothing more than firing a few blobby depth charges at some very uninspiring sprites and even the little bit of extra variety that the sub-sections provide can not compensate for the boring and repetitive main-game theme. Anyone used to the rapid-firing mega bazooka blasters, napalm bombs and multi-directional smart bomb launchers that come as standard in most shoot-em-ups is hardly going to be tempted by something like this.

As a re-hash of a very old and tired theme, The Deep would have been pretty disappointing at a budget price. At the present price it is only worth buying if you really want to relive the good old days of simplistic, blippy video games. It loooks as if US Gold got hold of this licence a few years too late.

K.H.

Graphics:	49%
Sound:	19%
Playability:	39%
Overall:	35%
Rating:	NAFF
Price:	£9.99 (disk) £14.99 (cass)

C64

MEGA

3D Pool

Firebird

Figured out what kind of a game 3D Pool is yet? Yes, Firebird have come up with the first pool simulation to break free from the two dimensional bird's eye view presentation of all its predecessors.

Wire-frame graphics could cause extreme confusion, so without sparing a thought for the over-worked processor, Aardvark Software have taken the solid option. The table can be viewed from just about any angle. Before taking a shot you will find yourself 'walking' around the table, sizing up all the possibilities. This feature, helpful in assessing the situation, has another purpose. The cue ball is always hit directly into the screen, so instead of using cross-hairs or a cue, you rotate the view until it matches what you would see if you played the shot for real. Holding down the button and moving the stick controls the speed and amount of side you put on the cue ball. Top spin and screw are governed by the height of the viewpoint. Standard UK rules apply, including free balls for a change.

> *"Solo players get to take part in a knockout competition, while pride is at stake for two player mode participants."*

Solo players get to take part in a knockout competition, while pride is at stake for two player mode participants. Any one of fifteen trick shots can be set up by the computer (all of which look impossible), or you can invent your own.

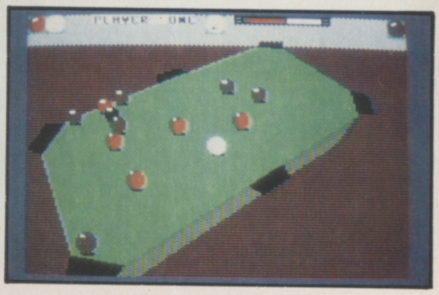
Pathetic boings and twangs used to be all you could expect from a pool simulation's sound, but 3D Pool's sampled effects are infinitely more realistic than anything that could be programmed into the SID chip. The graphics are also a big step forward. Solid 3D is rarely seen on the 64, and the reason is obvious when you notice the lack of speed in such games as Chuck Yeager's Advanced Flight Trainer, or any of the Freescape series. 3D Pool is an exception. The top end of the power scale is sometimes too low, which can be annoying, but whether that is a compromise connected with the game's speed is difficult to say.

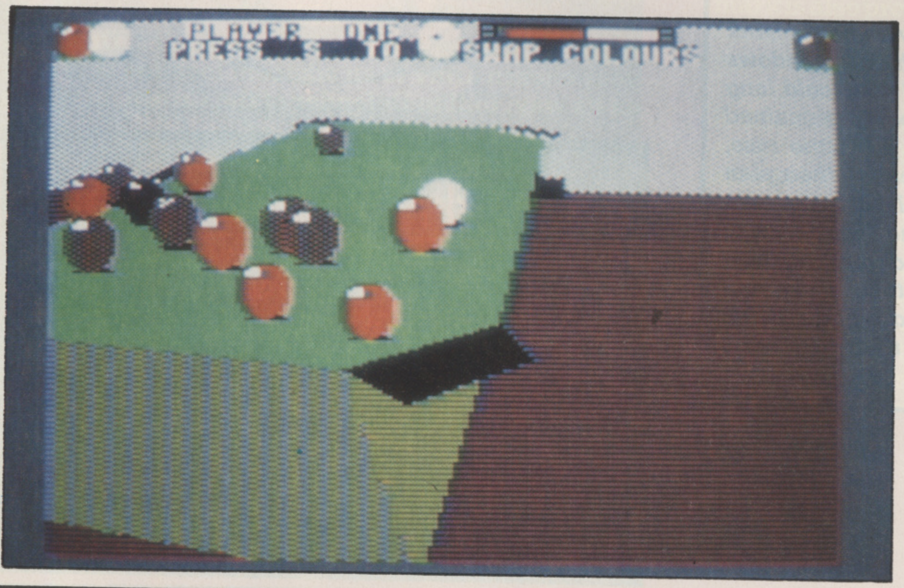
While the graphics move fast enough, the computer controlled opponents are the slowest I have ever come up against in a pool simulation. Looking to the obvious pots first, they sink the easy balls without much thought. However, if no straight shot is on, they ponder the situation for ages, usually giving up and playing a no-hoper in the end (presumably when their allotted time is up). A friend makes a much better opponent, although the more patient hustlers among us will get along fine in the single player mode. Either way, its an excellent alternative to the old style game, and by far the best pool simulation for the 64.

T.H

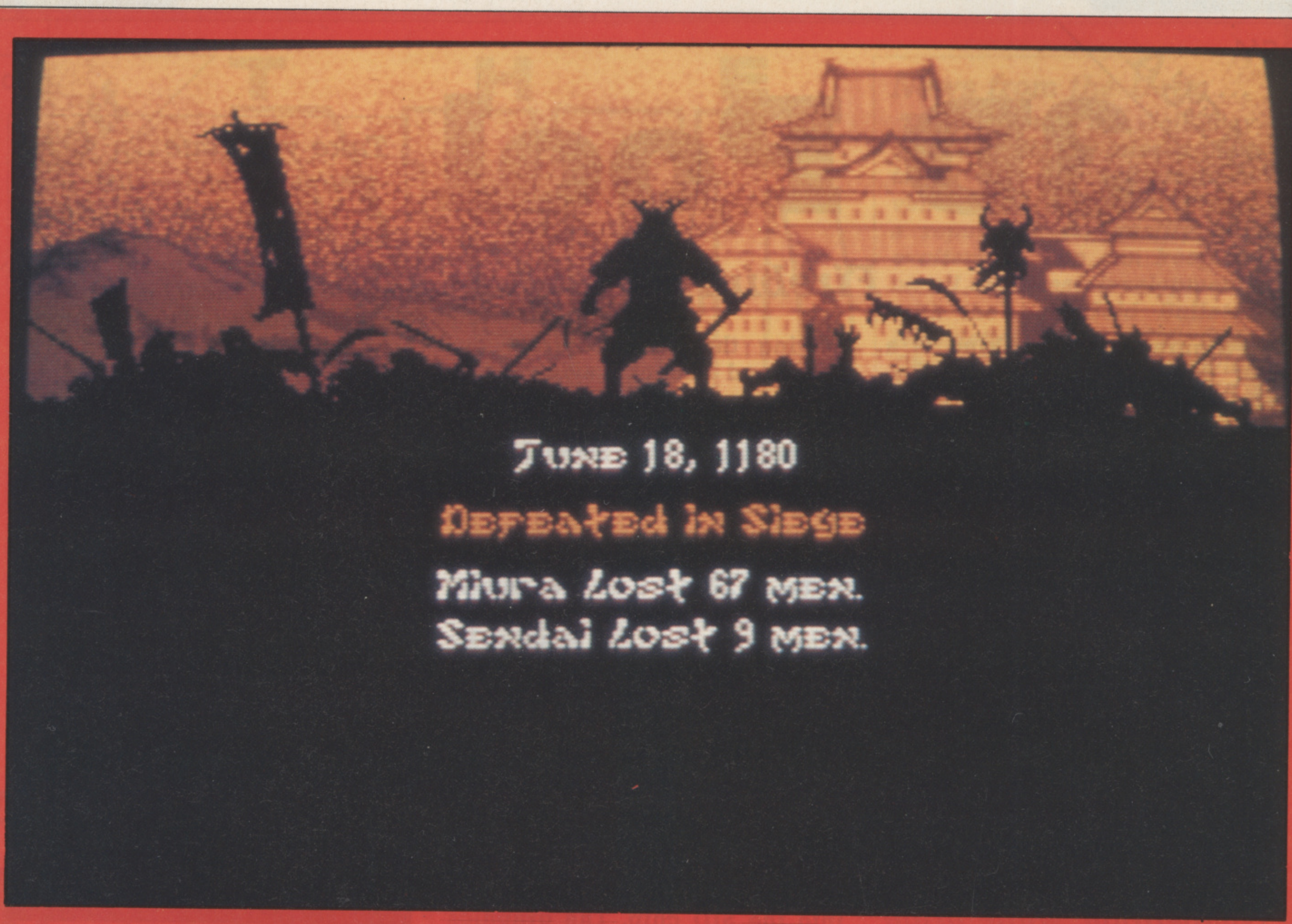
Take your cue ...

Firebird chose UK pool rules for their simulation, but there are many different varieties of the game played worldwide. The US game is all about scoring points, played not with the now-common reds and yellows of UK pool, but numbered spots and stripes. The French allocate three pockets along one side to each player, into which they can pot any ball on the table, bar the black and white. For a really wierd game, why not track down a pub with a six-sided rotating table?





Graphics: 89%
Sound: 80%
Playability: 79%
Overall: 80%
Price: £9.99
£14.99



June 18, 1180

Defeated in Siege

Miura Lost 67 men.

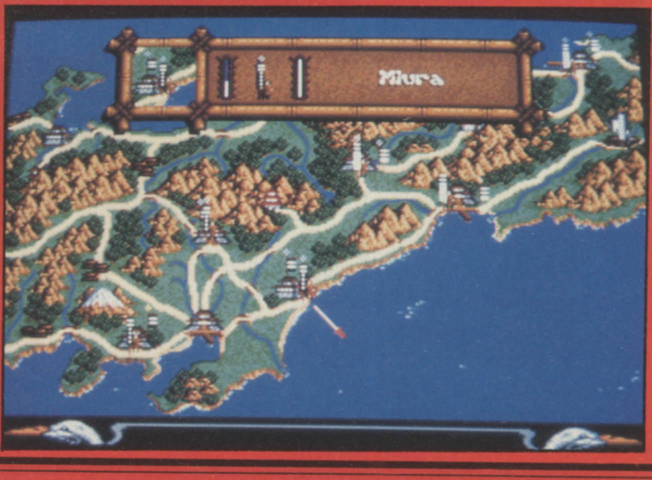
Sendai Lost 9 men.

The sun shone through the slatted windows of the pagoda reflecting brilliantly on the blade of the young warrior who sat there contemplating his future. Opposite him, his brother, a master tactician famed throughout Japan was similarly deep in thought surrounded by the tools of his trade, maps, strategies, information on army generals etc. The two of them sat across from each other knowing only one thing, the death of their father was to be avenged, that was certain, but how to succeed at this task was the problem that befell the brothers.

Hours later the sun, now a fiery red ball, sank slowly in the eastern sky and brought long shadows creeping into the room, the tea had gone cold long before now and the rice in the bowls remained untouched. Finally Yoshitsune and Yoritomo rose, bowed, and embraced each other sealing their plan and signalling the return of the Minamoto clan together again with only one aim, the destruction of the Taira, the powerful army clan who were responsible for the death of their father Yoshitomo. The rivers were destined to run red with the blood of the Taira, their temples and castles destroyed, their very name erased from Japanese history.

Computer games based around far-eastern history and martial arts have usually delved no deeper in the culture than a Bruce Lee film. Not necessarily a bad thing, but for a totally different approach, how about combining all the key features of a quest to become Shogun of twelfth century Japan?

From the grounds of your home castle, you can choose to enter your council room (of little use at the start of the game), or begin your conquest. From a map of the country you can plan out your moves. Paths connecting castles, monasteries and towns are shown on the map, with colour coded banners representing the armies of your enemies. Dragging your chosen army to an adjacent location sets it off on its way. Unlike Defender of the Crown, in which



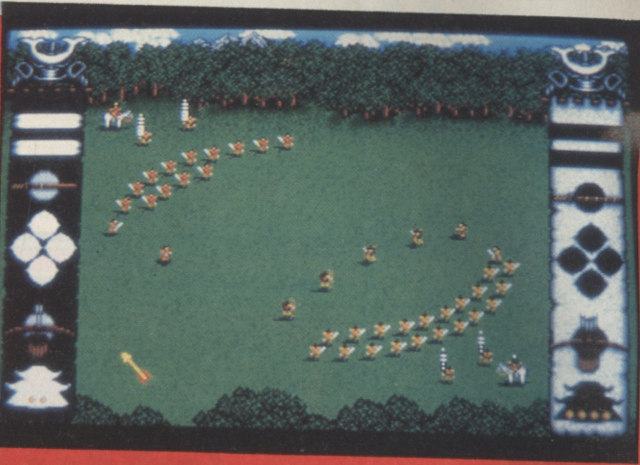
Lords of the Rising Sun

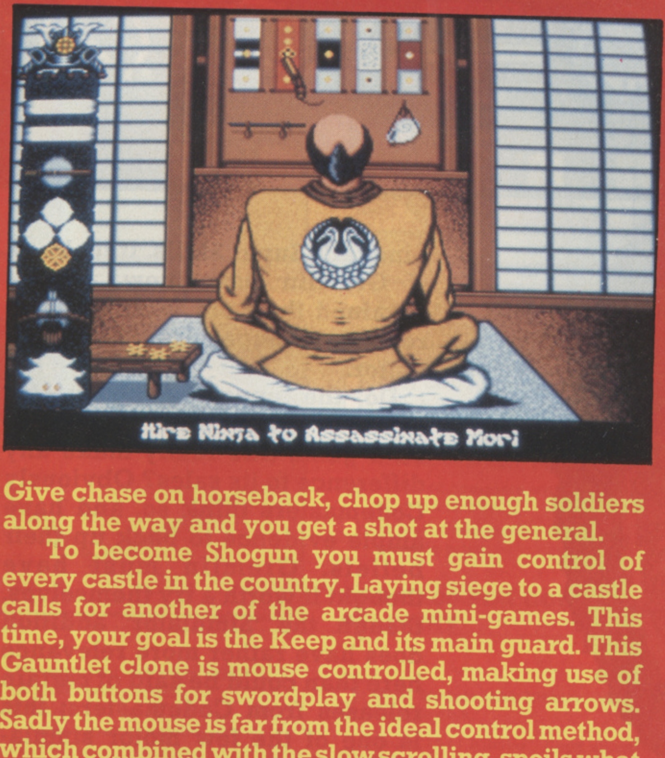
Cinemaware

you could just hop across a territory border with the date clocking on accordingly, Lords of the Rising Sun forces you to sit and twiddle your thumbs as your troops inch their way along the route. Pressing "A" speeds it all up a touch, but even then it seems to take forever for something to happen.

If you meet another army on the way you could attempt to form an alliance, or if you feel aggressive you could always go into battle. Commanding your archers and swordsmen from an ariel viewpoint, you get to decide when to advance and when to retreat. If you are skillful enough to force the enemy into reatreat, you could try to finish off their general. Give chase on horseback, chop up enough soldiers along the way and you get a shot at the general.

> *"Give chase on horseback, chop up enough soldiers along the way and you get a shot at the general."*





Hire Ninja to Assassinate Mori

To become Shogun you must gain control of every castle in the country. Laying siege to a castle calls for another of the arcade mini-games. This time, your goal is the Keep and its main guard. This Gauntlet clone is mouse controlled, making use of both buttons for swordplay and shooting arrows. Sadly the mouse is far from the ideal control method, which combined with the slow scrolling, spoils what could have been a very enjoyable little sub-game.

While you are out dealing death to your adversaries, they are also plotting your dimise. Just as you can hire a ninja to assasinate an enemy leader, you can find yourself the target of an identical attack. Similarly in another break from the strategy, you could be called upon to defend your own castle from invaders.

Cinemaware's characteristic movie-style presentation has been played down since Rocket Ranger. Inter-scene graphics and narratives are in no short supply, and the game disks are refered to as "reel one" and "reel two", but the credits, intros and the rest play a smaller part. The game format is typical of the series; a power race with a colonisation theme, a strategic core surrounded by arcade-like sub-sections. That one other Cinemaware hallmark is also present: disk swapping. For single drive systems (which in this case means all 512K machines) there is an awful lot of it.

Lords of the Rising Sun is a slick game. However, it does come as a slight disappointment after the amazing Rocket Ranger. The problem I mentioned about the long waits on the map screen is no minor one. It may be more realistic, but if it is all for realism, why not include a long pause to simulate the army sleeping at night? Because it would be extremely boring, that's why! That, and the disk swapping are the game's only notable faults, but it is a shame they can dilute the players interest to such a degree. Playtest it yourself if at all possible. You may hate it, but you might just love it.

T.H.

Graphics: 97%
Sound: 80%
Playability: 72%
Overall: 82%
Price: £24.95

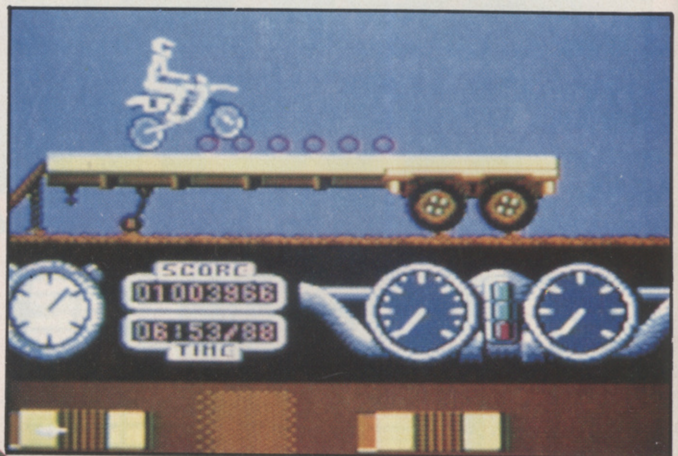
C64

MEGA

SUPER SCRAMBLE SIMULATOR

Gremlin

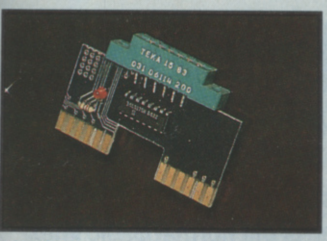
Once a prime source of quality original software, Gremlin have suffered a depression over the last few months. Such disasters as Roy of the Rovers and Artura have smeared their reputation, with nothing more than half-baked support from the likes of Technocop, Motor Massacre and Gary Lineker's Super Skills. It looks as if Gremlin have now at last regained their old form with the release of Super Scramble Simulator.



Do the appendages "Professional", "Super" and "Simulator" on a game title really make any difference to its sales? Obviously Codemasters think so, and have ample evidence to back up their beliefs. Gremlin must have thought it worth a try themselves, though the 'Simulator' addition does have rather more relevance here than could be said of certain releases from Codemasters; this is one of the few motor simulations which incorporates some kind of clutch.

The screen is split into three sections. Largest of these is the side-on scrolling view of the

DATEL ELECTRONICS



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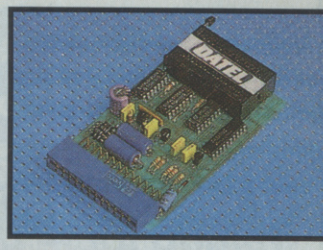

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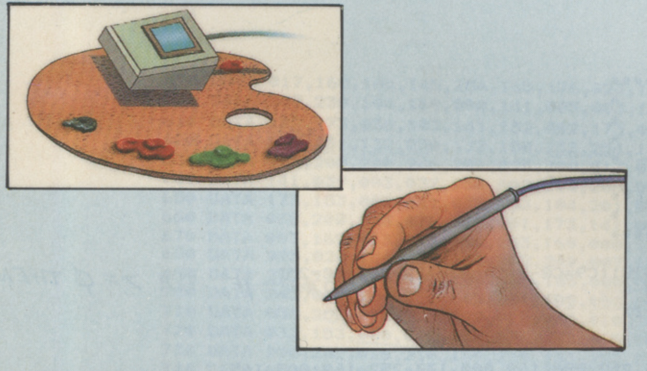

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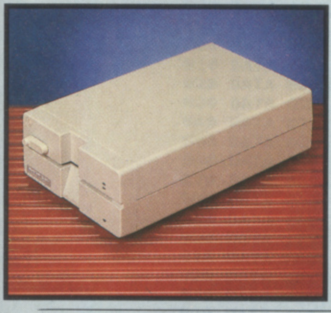

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S—ENTRY

What every C64/128 CCI reader has been waiting for — the ultimate error free inputting system is here!

CCI has commissioned this program entry system to enable error free input of printer listings. The following instruction should be read before you input and run the program.

S—ENTRY is for the C64 and C128 COMPUTERS ONLY.

First you must enter the S-ENTRY program itself. S-ENTRY is presented in the form of a Basic loader. The SAME program is used for the C64 and the C128, S-ENTRY is able to sort out for itself what machine it is running on.

When you have typed in the program SAVE IT BEFORE YOU RUN IT!

When you run the program, the machine code for S-ENTRY will be poked into memory, and it will modify itself to suite the C64 or the C128. You will be presented with a short message indicating that S-ENTRY is active.

S-Entry is not just an error checker, as it does allow you to choose how you want to use it, and it also has a few functions that will help you debug a program even if you did not type it in using S-ENTRY.

S-ENTRY Normal Mode

A typical S-ENTRY line will be of the form
ssss lllll c...c
where ssss is the four character S-ENTRY code, lllll is the Basic line number and c is the text of the Basic line.
eg. JPLL 10 GOTO 100 is a valid S-ENTRY line.

JPLL is the S-ENTRY code, and the 10 GOTO 100 is the normal Basic line.

You must take care not to enter spaces in the S-ENTRY code. It will not do any damage, but it will mean that S-ENTRY will not accept the line, so JPLL is correct, but J PLL is NOT correct.

Error Message

S-ENTRY only has one error message. That is.. 'TYPE MISMATCH ERROR' meaning, that you got it wrong!.

YOU MUST

1. Use EXACTLY the same line numbers
2. Enter the programs exactly as printed, including all REMs
3. Use EXACTLY the same commands, FULL command names MUST be used, ie '?' cannot be used instead of PRINT.
4. Remember to convert the easy enter codes ie [SP9] means type 9 spaces.

```
100 REM
110 REM********************************
120 REM*                              *
130 REM*         CCI S-ENTRY          *
140 REM*                              *
150 REM*      FOR THE C64 & C128      *
160 REM*                              *
170 REM*(C)1989,A.ESKELSON & G.CATTLEY*
180 REM*                              *
190 REM********************************
200 REM
210 M1=256*PEEK(179)+PEEK(178):C8=65281:C9=C8-2:FA=250:FB=251:FC=252   IF DA >= 0 THEN L
220 POKE C8,00:REM IF 128 SET BANK 0        230-DO: READ DA :
230 MC=M1+9:CC=0:FOR I=0 TO 61:READ ZZ      235 GOSUB 1150
240 CC=CC+ZZ:POKE M1+I,ZZ:NEXT I
250 REM DATA FOR CRC
260 DATA 169,000,133,250,133,251,133,252,096,169,000,133,252,162,008,165
270 DATA 250,042,038,253,042,042,042,042,042,069,253,133,253,165,250,069
280 DATA 253,133,253,165,251,042,042,042,069,253,133,253,038,252,042,069
290 DATA 253,106,038,251,038,250,202,208,214,166,251,165,250,096
300 IF CC<>9069 THEN PRINT"ERROR IN CHECKSUM DATA":STOP
310 REM
320 REM TEST FOR C128/C64
330 IF M1=2816 THEN C64=2:SA=3072:GOTO 360
340 IF M1=828 THEN C64=1:SA=49152:GOTO 360
350 PRINT"ERROR NOT C64 OR C128 ?":STOP
360 READ TC:EQ=0:EA=SA:SYS M1
370 HB=INT(SA/256):LB=0
380 REM START OF LOOP  DO : REMDOLOOP
390 READ DA$:REM READ THE DATA
400 IF DA$="-9999" THEN 480:REM FINISHED ALL THE DATA
410 DA=VAL(DA$):PRINTSA;CHR$(145)
420 IF LEN(DA$)<>3 THEN 450
430 POKE SA,DA:SA=SA+1
                          LOOP
440 POKE MC+1,DA:SYS MC:GOTO 390
450 A%=PEEK(FA):X%=PEEK(FB):CK=A%*256+X%
460 IF CK<>VAL(DA$) THEN EQ=1:GOTO 480
470 GOTO 390
480 IF EQ OR (CK<>TC) THEN 510
490 POKE FA,LB:POKE FB,HB:POKE FC,C64:SYS EA
500 PRINTCHR$(147);"S-ENTRY ACTIVE. TYPE '@NEW' TO CLEAR LOADER":END
510 PRINT"LINE/DATA ERROR IN LINE";
520 PRINT PEEK(66)*256+PEEK(65):END
530 DATA 44232
540 DATA 024,165,250,105,028,133,176,165,251,105,002,133,177,169,000,170,48900
550 DATA 168,024,177,176,133,254,200,177,176,101,251,133,255,200,177,176,00903
560 DATA 201,255,240,008,024,101,251,129,254,200,208,229,024,165,250,105,18744
570 DATA 112,133,176,165,251,105,002,133,177,024,165,250,105,126,133,254,17887
580 DATA 165,251,105,000,133,255,162,000,164,252,177,176,072,161,176,240,44466
```

5. Type anything between " " (quotes) EXACTLY as published.

S-ENTRY will ignore spaces between the Basic commands, so the line JPLL 10 GOTO 100 will be accepted as a correct line.

BASIC COMMANDS

S-ENTRY intercepts several vectors in the operating system, and because of this the normal basic commands are not available.... don't worry... you can still use them by prefixing the command with the @ symbol, so SAVE would become @SAVE etc.

NOTE do not use any DOS wedge, or you will confuse S-ENTRY.

S—ENTRY DISABLE

Before you run any programs that you have entered, S-ENTRY MUST BE DISABLED. Enter an ! on its own and S-ENTRY will be removed from memory and the normal operating system restored. REMEMBER ALWAYS SAVE A PROGRAM BEFORE YOU RUN IT!

MISSING LINES

In order to provide you with a flexible system, S-ENTRY only checks on a line by line basis. So if you miss out line 540 say, S-ENTRY will NOT report an error.

This may sound odd, but it does allow you to enter part of the program, then save it and come back to it at a later date. This is also helpful if you and several friends are splitting up the job of entering a large program, each person will be able to say that what has been entered is correct.

To make sure that you have the entire program, entered correctly Enter type '&' symbol on its own. S-ENTRY will then calculate the S-ENTRY code for the program in memory, you can compare this with the Final S-ENTRY code printed at the end of the listing.

ADVANCED USE

If you think that you are good enough not to use the S-ENTRY system, you can simply enter the normal basic lines after the S-ENTRY code. But what if you get it wrong? Well S-ENTRY has a command that will produce a summary of the S-ENTRY code and the line number in memory, you can then compare this with the published S-ENTRY codes and thus track down the problem. This command is ‹—LIST you can pause the list by using the Shift/Shift Lock keys. The command will also accept a line number range, ie 100-200 or 200— etc.

The ONLY difference that S-ENTRY makes to the published listing is the addition of the four character code before the line number, and the addition of the Final S-ENTRY code at the end of the listing.

S—ENTRY COMMAND SUMMARY

&	Calculates the S-ENTRY code for the entire program in memory.
@	Prefix to a basic command ie @DSAVE or @LOAD
!	Remove S-ENTRY
‹—LIST	Display S-Entry code summary, use shift/shift lock to pause.

YOU MUST

1. Use EXACTLY the same line numbers.
2. Enter the program exactly as printed, including all REMs.
3. Use EXACTLY the same commands, FULL command names MUST be used, ie '?' cannot be used instead of PRINT.
4. Remember to convert the easy enter codes ie [SP9] means type 9 spaces.
5. Type anything between " " (quotes) EXACTLY as published.

```
590 DATA 017,168,104,145,254,165,176,024,105,003,133,176,144,002,230,177,32098
600 DATA 208,230,104,169,000,141,005,003,169,126,141,004,003,169,000,133,49661
610 DATA 252,173,038,003,141,152,002,173,039,003,141,153,002,096,160,000,49456
620 DATA 132,251,132,250,132,180,132,254,132,253,185,000,002,201,032,208,52892
630 DATA 003,200,208,246,201,095,208,017,072,169,171,141,038,003,169,002,22812
640 DATA 141,039,003,032,154,002,104,208,053,072,173,152,002,141,038,003,55274
650 DATA 173,153,002,141,039,003,104,201,064,240,035,201,033,240,013,201,41233
660 DATA 038,208,033,076,068,001,173,141,002,208,251,096,169,067,141,005,20351
670 DATA 003,169,013,141,004,003,169,000,153,000,002,076,013,067,032,128,63881
680 DATA 003,024,144,247,165,252,240,007,169,000,133,252,024,144,236,132,15406
690 DATA 252,152,024,105,004,168,185,000,002,240,007,032,211,001,200,208,05629
700 DATA 245,000,164,252,162,001,185,000,002,072,169,032,153,000,002,104,21893
710 DATA 056,233,065,024,010,010,010,010,133,252,200,185,000,002,072,169,54075
720 DATA 032,153,000,002,104,056,233,065,041,015,005,252,213,250,208,011,11281
730 DATA 200,202,016,210,169,255,133,252,076,209,077,169,000,133,252,162,54224
740 DATA 022,108,000,003,162,001,181,045,149,176,202,016,249,141,001,255,56924
750 DATA 160,000,132,251,132,250,132,180,132,254,132,253,160,001,177,176,45691
760 DATA 240,040,200,177,176,032,211,001,200,177,176,032,211,001,200,177,58968
770 DATA 176,240,007,032,211,001,200,016,246,000,160,000,132,254,177,176,22791
780 DATA 170,200,177,176,134,176,133,177,208,210,160,000,140,000,255,185,63767
790 DATA 154,001,240,022,032,210,255,200,208,245,083,045,069,078,084,082,26008
800 DATA 089,032,067,079,068,069,032,061,032,000,162,001,181,250,072,041,42873
810 DATA 240,074,074,074,074,024,105,065,032,210,255,104,041,015,024,105,62214
820 DATA 065,032,210,255,202,016,229,141,003,255,169,000,141,000,002,076,51028
830 DATA 222,000,096,201,034,208,008,072,165,254,073,255,133,254,104,201,08627
840 DATA 032,208,004,036,254,016,052,133,180,169,001,072,165,251,041,128,08832
850 DATA 042,038,253,165,251,041,008,106,106,106,069,253,133,253,165,251,26391
860 DATA 069,253,133,253,165,250,042,042,042,069,253,133,253,038,180,042,59214
870 DATA 069,253,106,038,250,038,251,104,010,144,208,096,100,000,000,197,16654
880 DATA 000,001,253,000,001,103,001,001,109,001,001,117,001,001,145,001,10659
890 DATA 001,209,001,000,118,000,002,124,000,002,159,000,002,165,000,002,52822
900 DATA 172,000,002,178,000,002,211,002,002,001,003,002,010,003,002,019,14849
910 DATA 003,002,035,003,002,050,003,002,028,003,002,231,002,002,222,002,52909
920 DATA 001,047,003,002,194,002,002,200,002,002,042,003,000,255,255,255,04528
930 DATA 079,165,067,084,124,013,094,124,013,095,165,067,201,043,045,097,06351
940 DATA 115,128,098,000,003,187,138,209,188,164,077,073,141,211,074,002,22835
950 DATA 000,000,064,064,064,064,064,032,000,000,160,000,132,251,132,250,37171
960 DATA 132,180,132,254,132,253,132,177,132,176,096,134,182,132,181,201,46369
970 DATA 013,240,054,166,177,208,037,201,058,176,038,201,046,208,016,072,22106
980 DATA 173,152,002,141,038,003,173,153,002,141,039,003,104,208,018,164,50064
990 DATA 176,153,146,002,230,176,201,032,208,002,230,177,032,211,001,169,15787
1000 DATA 001,166,182,164,181,108,152,002,096,164,177,240,244,169,002,072,30286
1010 DATA 168,136,185,250,000,072,041,240,074,074,074,074,024,105,065,032,48296
1020 DATA 225,002,104,041,015,024,105,065,032,225,002,104,074,144,224,169,27482
1030 DATA 061,032,225,002,169,000,133,176,164,176,185,146,002,201,032,240,17276
1040 DATA 007,032,225,002,230,176,016,240,032,198,000,169,013,032,154,002,25087
1050 DATA 076,225,002,255,44232,-9999
```

133,252,

-4320

133,253,

193;

Back To Commodore Basics

Part Three

A little cheating, advises Peter Gerrard, is quite a help in very Basic programming ...

Hands up the readers who have spotted the three mistakes that we have made so far in attempting to get our screen display looking neat and tidy. You haven't spotted any? Then you have not typed the lines in! From what you should have typed in so far, amend the following lines and enter them as shown below:

```
300 FOR I=1 TO 12:PRINT TAB(X);
ZS:NEXT I
390 A=LEN(NAMES(I)):IF A <>22
THEN FOR J=A-1 TO 22:NAMES
(I)=NAMES(I)+"":NEXT J
400 X=3:Y=9+I:GOSUB 430:PRINT
NAMES(I);" ";
REVS;"("STRS(I-1);")";ROFS
```

Why those changes? Just seeing if anyone's paying attention, really. You remember more from correcting errors than just typing in everything parrot fashion. That is the theory, anyway, so let us carry on.

In the previous article, we finished by setting you a small task to perform. This was to fill in five lines of the first program in what will eventually become our database suite. This initial program is the menu, and it is from here that we can access the rest of the programs. As it is probably the screen that will be viewed most often, we have gone to great pains to give it as pleasant a look as possible, and the missing five lines add to this display by giving us a title for the screen.

I hope you managed to get five lines to perform that task. Here, for your comparison, is my original version:

```
230 PRINT CLS:PRINT
TAB(12);REVS;"************";
ROFS:PRINT TAB(12);REVS;"* C64
*";ROFS
240 PRINT TAB(12);REVS;"*D A T A
*";ROFS
250 PRINT TAB(12);REVS;"*B A S E
*";ROFS
260 PRINT TAB(12);REVS;
"************"; ROFS
270 PRINT:PRINT
```

In case you did not manage to get things sorted out correctly, or had some difficulty in doing so, let us take a look at each line in turn and see how it fits into the program as a whole.

Line 230 first of all, and we begin by printing the string variable CL$. This was defined in line 30 of the program, and is used for clearing the screen. This gives us a much neater and tidier display. We then use the TAB keyword (just like a typewriter) to move 20 characters across the screen, thus ensuring that as long as we separate those items that we want printing with a semi-colon rather than colon then we will be printing roughly in the middle of the screen. The string variable REV$ is then printed, to turn on reverse printing (as defined in line 40), before we print eleven asterisks and then reverse printing off with the string variable ROF$; again, this was defined in line 40. The next set of instructions in line 230 then use the TAB keyword again, and in reverse print once more we print up the legend "* C64 *". All of this just adds a touch of flair to this all-important opening screen.

Lines 240, 250, and 260 then follow the same sort of pattern, printing up various words and displays to complete our title box, before line 270 simply PRINTs twice to move down two lines on the screen. This is so that the next set of instructions, which we looked at in part one of this series, will be printing information in the correct place on the screen.

Award yourself a pat on the back if you got it right, or roughly right, but if you were nowhere near then re-read parts one and two again and take time to digest it all. There was a lot of information in those first two articles, with a lot of keywords being introduced, so any mistakes are understandable.

We'll be taking things slightly easier this month, by finishing off this menu program and looking at some applications of keywords that we have already encountered, said applications coming into play as the months go by and our database program begins to edge ever nearer completion.

> ***"Each program line can only contain 80 characters, according to the manual. Well, the short answer is that we cheat!"***

But first, a brief digression. Look at line 230. It contains more than 80 characters, so how can we possibly enter it into one line of a Commodore 64 program? Each program line can only contain 80 characters, according to the manual. Well, the short answer is that we cheat! Instead of entering the word PRINT in full, use the question mark symbol ? in its place. It has the same effect. Try (without a line number) entering ? "HELLO" and seeing what happens. When you are used to using ? as a shorthand for PRINT, enter the program lines given above. Now, back to the article.

One of the most important areas for

the operation of a program such as this is the collection and treatment of information provided by the user. We have already seen one way in which the programmer can generate information for the program itself to use, but what if we want to ask the user to tell us something? How, in other words, does the user interact with the program?

There are two main ways of doing this, and although we will not be using the first one that we'll be looking at in this menu program it is important that the principles behind it be grasped properly. It is a very useful keyword in the Basic language, and many programs use it. If we want the user to input some information from the keyboard, we use the keyword INPUT. Here are some examples of it in use:

```
INPUT A
```

This means that the user has to type in a number, which will then be stored in the string variable A. Try it and see, just by entering it as a direct command: i.e. no line number, type it in as shown, enter a number, then press RETURN.

```
INPUT A$
```

This means that the user has to type in a word, or name, or anything, which will then be stored in the string variable A$. We can, to make things more intelligible for the user, include some text in this command:

```
INPUT “PLEASE ENTER YOUR NAME”;A$
```

Note the appearance of the semi-colon after the text has finished but before the string variable appears. *This is vital, do not leave it out.* We can input strings and numbers with the same statement:

```
INPUT “PLEASE ENTER NAME AND NUMBER”;A$,A
```

Now, the user would respond by typing in something like PETE GERRARD,12345 before pressing return. Note the use of commas to separate the string variable from the numeric one in the command itself, and the similar use of a comma to separate the name from the number when the user types in their response. As with the semi-colon before the variable is presented, these are vital. Try leaving them out and see what happens!

However, there is one vital flaw with this statement, and that is that the user can just press the RETURN key on its own. This means that no information will be presented to the computer, as we can demonstrate with this short program:

```
10 INPUT “NAME”;A$
30 PRINT A$
```

Type this in and run it, and when the question mark appears just press RETURN. You will see that nothing is printed out, so we would have to add another line to check for this:

```
20 IF A$=“ ” THEN 10
```

This uses the IF ... THEN keywords that we saw last month, and tells the computer that if the string variable A$ contains no information then go back to line 10 and wait for the user to type something in.

Thus it would be rather easy to make a mistake when using this command, and allow false data to be presented to the computer. In particular we do not want any errors in our opening screen, so we will make use of another Basic keyword that also allows us to accept information from the user via the keyboard. This is the keyword GET, and we shall now add a line to our program using this particular keyword. Eliminate the little three line program earlier if you typed it in. Do this with the keyword NEW. Just type in the word NEW and press RETURN, and the program will vanish from the computer's memory. If it is stored on disk, though, it will still be there, don't worry. Then we can load in our menu program with the command LOAD “MENU”, and you are now ready to add the following two lines to the program:

```
80 GET A$
90 GET A$:IF A$=“ ” THEN 90
```

Why use it twice? Well, all computers come equipped with what is known as a keyboard buffer. This is an area of computer memory that stores what is typed in by the user, retrieving it from this area when it is ready to process it. It is possible to fill this buffer up so that it will take no further key presses, and thus the user might accidentally load the wrong option from our menu. Line 80 helps eliminate this problem by removing some of what was already in the keyboard buffer. If there was nothing there, the only effect on the user is that they have to keep their finger on the desired key.

Line 90 then sits and waits until a key is pressed. When it is, it is stored in the string variable A$. For example, if the user preseed the 'T' key, then A$ would be equal to “T”. However, our menu display has a list of available options (SORT RECORDS, etc.) followed by a list of numbers. To choose the desired option, the user must press the numeric key corresponding to that option, and so we want to eliminate any possibility of the user pressing any other sort of key. To do this we must check on the ASCII value of the key being pressed. This was discussed in the first part of this series of articles, but as an aide memoire try entering PRINT ASC(“I”);ASC(“9”) and study the results. You should see the numbers 49 and 57 appearing on your screen, and so in order to ensure that the user presses a number in the range 1 to 9 we can use these values as follows:

```
110 A=ASC(A$):IF A<48 OR A>57
THEN 90
```

Here, the numeric variable A is given the ASCII value of the string variable A$, which contains whatever key was pressed by the user. If this value is less than 48 or greater than 57 then the key pressed wasn't one of the numeric ones, so we go back and wait until it is. And what, by the way, has happened to line 100% Line 100 is there to avoid unnecessary eating up of memory (something we discussed in part two) and looks like this:

```
100 OK=FRE(0)
```

We now arrive at the point where we know that the user has typed in a number in the range 0 to 9, and we want to make use of this fact. The first thing that we will do is show the user their choice on the screen. This will be done by changing the initial screen display so that the option chosen will be changed from reverse print to ordinary print: we will only change the number selected, rather than the whole name, as this is enough to indicate the choice. In order to do this we must use a line of the program that we first saw in part two of this series, namely line 430. This, if you recall, was a one line subroutine, or part of a program that is repeatedly used by other parts. This subroutine allows us to position the cursor at any point on the screen, provided that we give the routine an X co-ordinate and a Y co-ordinate.

If you study the screen display you will see that all the numbers are in a vertical line, and therefore the X co-ordinate will always be the same. It is, in fact, 28. This is one of those aspects of programming that are achieved by trial and error rather than anything else! We experiment with different numbers until we get the right one. The Y co-ordinate, however, will obviously vary according to which number has been pressed, but as the numbers are going up sequentially from 0 to 9 a quick bit of 'trial and error' programming shows us that the following line will position things correctly on the screen:

```
120 X=28:Y=9+(A-47):GOSUB 430:
PRINT "( ";A$;" )";
```

As we have stated, the X co-ordinate is always 28. The Y co-ordinate increases according to the number pressed. Number 0 is at the top, number 1 is a row further down, so the formula above uses the already determined ASCII value of the key pressed to make sure that we are on the correct path of the screen. The subroutine at line 430 positions the cursor at the desired point, and then we are free to print over what is already there. Here we make use of the string variable A$, in order to ensure that the correct display is printed up.

There are now just a few lines to add to this program, and eight of those are very similar. Consequently we will look at the dissimilar ones first of all, and to begin with we will introduce another Basic keyword. This allows us to direct program control, so that once again we can stop obeying each line instruction in strict numerical order and disappear to some other point in the program. The keyword GOSUB allowed us to do this, but GOSUB always has to be matched with RETURN, so that program flow can continue from the point immediately after the GOSUB. At times it would be convenient to go to a particular part of a program and not worry about coming back, and the keyword for this sort of instruction is GOTO. Thus we can GOTO a certain line in the program and not bother coming back. The simple statement GOTO 280 will ensure that the next program line executed will be line 280.

There is a further variation on the normal GOTO command (which also applies to the GOSUB command, although great care must be executed when using it because of the need for the RETURN keyword), and this allows us to go to a particular part of a program depending on the value of a numeric variable. This command takes the form ON variable GOTO list of line numbers. Suppose we had a variable A, and line numbers increasing in steps of 10 from 140 to 220. We could use something like:

```
ON A GOTO 140,156,160,170,180,
190,200,210,220
```

Here, if A had the value 1, when a statement such as this was encountered program control would go to line number 140. If A had the value 2, we would go to line 150. This continues until A has the value 9, which would send us to line 220. Unfortunately for us, in the program that we are writting the numeric variable A lines in the range 48 to 57. This is no great problem, because this ON .. GOTO command allows us to play about with the variable until it ends up within the desired range. Thus we get a new line of our program:

```
130 ON A-47 GOTO 140,150,160,
170,180,190,200,205,210,220
```

In this line another very important part of Basic programming comes to light. You see the rogue line 205 there. I say "rogue" because every other line is a direct multiple of 10, but this one obviously is not.

This is because I had finished writing the database when I decided that it would be a good idea to allow the user to swap records around, as well as everything else. A new module was added to the database, and a new line had to be inserted into the menu program. As everything was increasing in steps of 10, it was a simple matter to insert line 205 to accommodate this new module.

But back to line 130. This means that we take 47 from the value currently held in the numeric variable A, and then depending on the result of that calculation we go to line 140, 150 etc. Thus if A held the value 48 we would subtract 47 from that, leaving us with 1, and we would go to the first line number indicated; in this case line 140. If A held the value of 49, we would go to line 150 (49–47 = 2, and the second line number is line 150). Although the line numbers here are in strict numeric order, they do not have to be. Consequently you could have something along the lines of **ON A GOTO 140,160,140,150,170** and so on.

You will notice that (in the program line 130) if the variable A has the value 57 then we go to line 220 (57–47 giving us the value 10, meaning the last line number represented). This indicates the end of the program, and in order to keep things tidy we will clear the screen, inform the user that they have finished for the day, and end the program. Like this!

```
220 PRINT CL$;:PRINT "END OF
SESSION.":END
```

In order of statements, we clear the screen, inform the user that the program is over, and finally end the program using the Basic keyword END. This indicates that the program has come to an end, and that we've finished. Of course, the user could always type RUN and start again if they wanted.

Now we come to the last set of lines for this month, the ones that allows us to access the various parts of the database module. With one exception they are all virtually identical, and that last one is taken from the More 64 Power article (almost!) in the May 1989 issue of CCI. Here wo go:

```
140 A$="DEFINE":GOTO 215
150 A$="DISPLAY":GOTO 215
160 A$="ADD":GOTO 215
170 A$="DELETE":GOTO 215
180 A$="AMEND":GOTO 215
190 A$="SEARCH":GOTO 215
200 A$="SORT":GOTO 215
205 A$="SWAP":GOTO 215
210 A$="PRINT"
215 PRINT CL$;"[2CD]LOAD ";
    CHR$(34);A$;CHR$(34);",8
    [HOME]"
216 PRINT "[7CD]RUN[HOME]"
217 POKE 631,13:POKE 632,13:POKE
    198,2:END
```

You now have every line of our program, and can save it all to disk.

A quick note when entering the listing. Anything in square brackets (e.g. [HOME]) means just press the key marked, in this case, HOME. The [7CD] means press the cursor key down seven times — do not enter the square brackets, just press the keys indicated! Tape users should change the ,8 in line 215 to ,1 — even then, you will have a long wait. But that is a result of using a cassette deck. (More on that in the coming months).

After saving the program, to see it just type LIST and press RETURN, and you should see line numbers 10 to 450 appearing on the screen.

But it does not all fit on the screen at once, you may say. There are variations on the LIST instruction that allow us to take care of this, and if we wanted to list lines 10 to 100, say, we would enter LIST 10-100 before pressing RETURN. Listing every line up to line 200 would be achieved by typing LIST -200, while listing every line beyond line 300 would be done with LIST 300-. Thus we can effectively control which portions of the program will be listed on the screen.

However, there are other methods available to us to enable us to see various parts of the listing. Type LIST and press RETURN as usual, then press the CONTROL key (just to the RUN/STOP key on the left, marked CTRL). This slows things down for us.

And that's it for this month. For something to ponder on until the next article, think about how you would go about setting up a file index system, with the ability to cross-relate items of information in that system. Then, think about how you might start doing that in computing terms, because that is what we will be looking at next time. See you then.

P.G.

Alarm 16

C.Cave C16/+4

This is an interrupt driven alarm clock that allows you to set a time for the alarm to go off. To stop the alarm the following pokes are required: POKE786,66:POKE787,206:POKE65297,0

```
1 REM ****************
2 REM *   ALARM 16    *
3 REM *  BY C.A.CAVE  *
4 REM *   JAN 1989    *
5 REM *  FOR  C16/+4  *
6 REM ****************
10 SE=1630:EE=1704:CH=0
20 FORI=SETOEE:READA:POKEI,A
30 CH=CH+A:NEXTI
40 IFCH<>7962THENPRINT"DATA ERROR - CHECK DATA":LIST170-:END
50 PRINT"ALL DATA OK"
60 PRINT"[CD2]"
70 INPUT"ALARM SET (HHMM)";G$
80 IFLEN(G$)>4ORLEN(G$)<4THENPRINT"[CD][CTLB]INCORRECT[CTLD]":GOTO60
90 G$=G$+"00"
100 TI$=G$:K=0
110 FORL=163TO164:POKE1669+K,PEEK(L):K=K+1:NEXTL
120 INPUT"[CD2]TIME (HHMMSS)";M$
130 IFLEN(M$)>6ORLEN(M$)<6THENPRINT"[CD][CTLB]INCORRECT[CTLD]":GOTO120
140 TI$=M$
150 PRINT"[CD2]COUNTING..."
160 SYS1658:NEW
170 DATA 165,163,205,133,006,240,003,076,066,206,165,164,205,134
180 DATA 006,240,003,076,066,206,169,202,141,015,255,076,135,006
190 DATA 169,094,141,018,003,169,006,141,019,003,096,000,000,169
200 DATA 148,141,018,003,169,006,141,019,003,076,066,206,169,047
210 DATA 141,017,255,173,167,006,105,002,141,167,006,141,016,255
220 DATA 076,066,206,255,000
```

Cassette Directory

Norman Hart C64

You just may recognize the Pet arrow chip in these listings. This program keeps track of your programs on tape and allows for the fast selection of them. It relies on an arithmetical combination of the internal clock (variable TI), two user variables (lines 200 and 210) and a variable obtained from the database. They all come together (lines 830 to 860) to control timing of the Tape Deck. Variables TN and TO (lines 200 and

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210) act as controls for any peculiarities your own data cassette may have.

```
AEPJ 100 REM *****************************
EAGK 110 REM *[SP6]COMMODORE 64[SP10]*
DOPL 120 REM *[SP28]*
ICBA 130 REM *[SP3]CASSETTE[SP2]DIRECTORY[SP6]*
EAJH 140 REM *[SP28]*
NOFG 150 REM * WRITTEN BY - NORMAN HART.[SP2]*
CDOO 160 REM *****************************
CONM 170 :
HAKJ 180 P$="[SP40]":REM 40 SPACES
OLOB 190 POKE192,1:POKE1,PEEK(1)OR32
DJIC 200 TR=15:REM:TAPE SPEED TRIM TO WITHIN ONE DECIMAL PLACE
MPGE 210 TS=20:REM:TAPE STOP TRIM (INTEGER ONLY)
AAPK 220 PRINTCHR$(147)CHR$(158):POKE53280,7:POKE53281,0:C=4:L=4:GOSUB940
BKOD 230 PRINT"PRESS "CHR$(18)"STOP"CHR$(146)" ON CASSETTE":WAIT1,16
FODH 240 GOSUB940:PRINT"PRESS "CHR$(18)"REWIND"CHR$(146)" ON CASSETTE":WAIT1,16,
     16
HEID 250 READS$,L$:IFS$<>"END OF TAPE"THEND=D+1:GOTO250
FFAH 260 L=6:GOSUB940
DNMB 270 PRINT"THEN PRESS "CHR$(18)"STOP"CHR$(146)" WHEN TAPE ENDS":WAIT1,16
DPAE 280 DIMS$(D),L$(D):D=0:RESTORE
LBFC 290 READS$(D),L$(D):IFS$(D)<>"END OF TAPE"THEND=D+1:GOTO290
AJKB 300 :
ALDE 310 :
FGHP 320 PRINTCHR$(19);:FORX=0TO2:PRINTCHR$(18)P$;:NEXT
JLIM 330 C=11:L=1:GOSUB940:PRINT"CASSETTE DIRECTORY"
MNHI 340 MP=P:IP=-1
CBJJ 350 C=1:L=4:GOSUB940:PRINTCHR$(18)LEFT$(P$,38);
PPPC 360 C=1:L=L+1:GOSUB940:PRINTLEFT$(P$,38);
JHML 370 GOSUB940:PRINTP+1;:C=4:GOSUB940:PRINT"-";:C=5:GOSUB940:PRINTS$(P);
HINH 380 C=35:GOSUB940:PRINTL$(P);:IP=IP+1:IFL=14THEN400
OCFE 390 IFS$(P)<>"END OF TAPE"THENP=P+1:GOTO360
OEKJ 400 C=1:L=L+1:GOSUB940:PRINTLEFT$(P$,38);
CFFJ 410 IFL<14THEN400
OJPP 420 C=2:L=17:GOSUB940:PRINTCHR$(18)"RETURN[ROF]=ENQUIRY"
GIDL 430 C=3:L=19:GOSUB940:PRINTCHR$(18)"SPACE[ROF]=PAGE[SP2]"
NDAO 440 PRINT:PRINTLEFT$(P$,38)
OLJC 450 :
OMCN 460 :
OLOC 470 POKE198,0:WAIT198,1:H=PEEK(631)
JEEL 480 IFH=32ANDS$(P)="END OF TAPE"THENP=0:GOTO340
CKLA 490 IFH=32THENP=P+1:GOTO340
BLGP 500 IFH=13THEN540
DEHI 510 GOTO470
HDDD 520 :
HBKG 530 :
HCLB 540 GOSUB940:PRINT"[SP4]"CHR$(18)"R"CHR$(146)"=RE-TRY":REM 4 SPACES
IHJF 550 PRINT:PRINT" MOVE "CHR$(18)"CURSOR"CHR$(146)" TO SUBJECT"
ADIM 560 P=P-IP:C=5:L=5:GOSUB940
HCIO 570 GOSUB680
LPJI 580 POKE198,0:WAIT198,1:H=PEEK(631)
HMBN 590 IFL=14ANDH=17THEN580
FKGC 600 IFL=5ANDH=145THEN580
IBAE 610 IFP=DANDH=17THEN580
POJA 620 IFP=0ANDH=145THEN580
DNAE 630 IFH=17THENGOSUB940:PRINTCHR$(18);:GOSUB680:L=L+1:P=P+1:GOSUB940:GOTO570

ENBA 640 IFH=145THENGOSUB940:PRINTCHR$(18);:GOSUB680:L=L-1:P=P-1:GOSUB940:GOTO57
     0
AAFA 650 IFH=82THENP=MP:GOTO340
LBII 660 IFH=13THEN710
```

```
HBOD 670 GOTO580
NGDH 680 PRINTS$(P)RIGHT$(P$,30-LEN(S$(P))):RETURN
NPPK 690 :
FMIO 700 :
JMCK 710 PRINTCHR$(147):C=3:L=1:GOSUB940:PRINTCHR$(18)"SUBJECT"
EBEJ 720 C=10:GOSUB940:PRINT":"S$(P)
ADEL 730 C=2:L=4:GOSUB940:PRINTCHR$(18)"LOCATION"
KPFC 740 C=10:GOSUB940:PRINT":"L$(P)
ENEO 750 PRINT:PRINT"────────────────────────────────────────":REM: 40 SHIFT "*"
DLEL 760 C=4:L=10:GOSUB940:PRINT"PRESS "CHR$(18)"FORWARD"CHR$(146)" ON CASSETTE"
JCGD 770 WAIT1,16,16:POKE198,0
EGEC 780 C=1:L=1:GOSUB940:PRINTCHR$(18)"SEARCHING"
IKPD 790 C=14:L=8:GOSUB940:PRINT"*RE-TRY*":C=4:L=10:GOSUB940
DLIK 800 PRINTCHR$(18)"ANY KEY"CHR$(146)" C-64 OR "CHR$(18)"STOP"CHR$(146)" ON T
     APE"
BOLH 810 :
BJAI 820 :
ILOO 830 Y=VAL(L$(P)):Y=Y*TR:GETA$:T1=TI-TS
KMPE 840 GETA$:IFPEEK(1)=55THENRUN
LBIB 850 IFINT((TI-T1)/10)<>INT(Y/10)ANDA$=""THEN840
FHNN 860 IFA$<>""THENRUN
KJEE 870 POKE192,1:POKE1,PEEK(1)OR32
PEOB 880 C=1:L=1:GOSUB940:PRINT"[SP4]"CHR$(18)"FOUND"
BLEH 890 C=14:L=8:GOSUB940:PRINTLEFT$(P$,8)
KHGG 900 C=4:L=10:GOSUB940
FKCG 910 PRINT"PRESS "CHR$(18)"STOP"CHR$(146)" ON TAPE[SP19]"
DKKH 920 WAIT1,16:GOTO960
IONG 930 :
PPMB 940 POKE211,C:POKE214,L:SYS58732:RETURN
IBKJ 950 :
OGEM 960 POKE631,131:POKE198,1:END:REM:NEW
JKKC 970 C=0:L=18:GOSUB940:PRINT"LOAD"CHR$(34)CHR$(34)",7"
OJPA 980 C=0:L=16:GOSUB940:POKE631,13:POKE198,1:END:REM:NEW
CGGI 990 REM:LINES 970 & 980 FOR CBM64 WITH FINAL CARTRIDGE TAPE TURBO
LJPH 1000 DATAONE,5,TWO,27,THREE,35,FOUR,46,FIVE,57,SIX,63,SEVEN,67,EIGHT,73
NGDH 1010 DATANINE,77,TEN,80,ELEVEN,95,TWELVE,110,THIRTEEN,115,FQURTEEN,119
HJCA 1020 DATAFIFTEEN,121,SIXTEEN,127,SEVENTEEN,129,EIGHTEEN,130,NINETEEN,132
ENLB 1030 DATATWENTY,137,TWENTY ONE,139,TWENTY TWO,140,TWENTY THREE,141
EOII 1040 DATAEND OF TAPE,143
S-ENTRY CODE = NBBL
```

Bank Balance

Frank Carson C64

Keep your accounts in order with this nifty program for cassette or disc owners. The first section pokes the machine code into memory from location $C000 — after which the main menu will be displayed. Entering data: the type of transaction will be in bank shorthand. BGC = giro credit. INP = interest. DDN = direct credit, etc. When entering numerals, if both sections are zero, the record will not be accepted. Press A for another record, M for return to Main Menu, C to

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copy existing recrod, E to escape.

*Note: if the existing Basic program is run it will warn of data errors. If it is correct it will poke the M/C into memory form location $C000. List the basic program in order to fill the screen, and enter the following at the botton of the screen direct from the keyboard. CLR: SYS49152:PRINT"HELLO" (return). The bottom few lines should clear and HELLO will appear on the first line of the window with READY two lines lower down. The rest of the listing can now be entered but before doing so note the variable DV+8. DV is the storage device. If you are using tape change this to DV+1. Three Commodore special characters are used in the listing (Shifted +) produced a large =. (Shifted *) a horizontal line. These two are used to create PL$ and (Shift *) to underline Menu. (Shifted -) produces a vertical line. If the printer used is not CBM compatible, then characters such as * or £ can be substituted.*

```
GFKP 100 REM BANK BALANCE PROGRAM.[SP2]BY FRANK CARSON.
PDEM 110 REM************ M/C ***************
HLAI 120 LN=300
FCBC 130 PRINTCHR$(147)
KNEG 140 LOC=49152
MGPA 150 CH=0
EBLH 160 FORX=1TO8
APNJ 170 READA
FIIH 180 IF A<0THEN 400
PNKH 190 IFA>255 THEN280
HBMM 200 CH=CH+A
FHIG 210 POKELOC,A
DHBE 220 LOC=LOC+1
HCGA 230 NEXTX
AGNH 240 READB
NHBO 250 IFB<>CH THEN290
IDGM 260 LN=LN+10
CBMO 270 GOTO150
BJMN 280 PRINT:PRINT"OUT OF RANGE ERROR. LINE"LN:END
ELDO 290 PRINT:PRINT"CHECKSUM ERROR. LINE"LN:END
DEOD 300 DATA 169,168,141,018,192,169,006,141,1004
BOKB 310 DATA 019,192,169,000,141,038,192,169,0920
EEHH 320 DATA 032,141,184,005,238,018,192,208,1018
BNEF 330 DATA 246,238,019,192,173,019,192,201,1280
INIO 340 DATA 007,144,236,169,032,141,000,007,0736
MMKH 350 DATA 238,038,192,173,038,192,201,232,1304
AHNM 360 DATA 144,241,169,000,133,211,169,017,1084
KKEN 370 DATA 133,214,032,108,229,096,255,000,1067
CMIN 380 DATA -1
GPDK 390 REM ********** MAIN PROG *******
GDJB 400 DV=8
CEAH 410 DIM AA$(52),AB$(52),AC$(52),DB(52),CR(52),BL(52)
LKGM 420 LB$="BANK STATEMENT CHECK.[SP3]BY FRANK CARSON."
DEFK 430 F$="NO NAME"
HOED 440 PL$="┼──────────┼─────────┼───────────────┼"
HNKO 450 LI$=PL$+RIGHT$(PL$,39)
EAJB 460 DT$="|...........|"
AGDN 470 TR$="...........|"
AJHA 480 NM$=".................|"
OMKK 490 P1$="|DATE.[SP5]|"
DNPJ 500 P2$="TRANS TYPE|"
GOIO 510 P3$="[SP2]DETAILS.[SP6]|"
GEMO 520 P4$=" DEBIT.[SP3]|"
IHDG 530 P5$=" CREDIT.[SP2]|"
CJNI 540 P6$="[SP2]NEW BALANCE.[SP2]|"
```

```
GBPB 550 LU$=P1$+P2$+P3$+P4$+P5$+P6$
IEGF 560 PRINTCHR$(147)
BKLA 570 PRINT"MAKE YOUR CHOICE:-"
BPMH 580 PRINT:PRINT"PRESS[SP2]L[SP2]TO LOAD EXISTING FILE."
IODI 590 PRINT:PRINT"PRESS[SP2]N[SP2]TO CREATE A NEW FILE."
GJIE 600 GETA$:IF A$=""THEN600
KCNI 610 IF A$="N"THENGOTO640
HDIF 620 IF A$="L"THENGOSUB1200:GOTO750
DBBM 630 REM *********** INITALIZE ******
FPEF 640 PRINTCHR$(147)
AGAP 650 FOR I=0 TO 52
HIJK 660 AA$(I)=DT$
HKBB 670 AB$(I)=TR$
GDBO 680 AC$(I)=NM$
BDAG 690 DB(I)=0:CR(I)=0:BL(I)=0
BHAK 700 NEXT I
CFNJ 710 NR=1
PNCM 720 DB(0)=NR
DIOM 730 GOSUB1010
BAOI 740 REM ********** MENU *************
DBPH 750 J=0:PRINTCHR$(147);
KNBO 760 PRINT:PRINT"[SP17]MENU."
JEAA 770 PRINT"[SP17]───── "
DINH 780 PRINT:PRINT"[SP2]1.[SP3]DISPLAY FILE."
KLLH 790 PRINT:PRINT"[SP2]2.[SP3]PRINT FILE."
HPAO 800 PRINT:PRINT"[SP2]3.[SP3]ENTER TRANSACTION."
PIPE 810 PRINT:PRINT"[SP2]4.[SP3]SAVE FILE."
PAHP 820 PRINT:PRINT"[SP2]5.[SP3]EXIT."
MKKC 830 PRINT:PRINT"[SP3]SELECT THE NUMBER OF YOUR CHOICE."
AKOP 840 GETA$:IFA$=""THEN840
BFAE 850 IFA$="1"THEN 1480
GFGG 860 IFA$="2"THEN 1640
LCME 870 IFA$="3"THEN 1760
KJGH 880 IFA$="4"THEN 3080
CBPE 890 IFA$="5"THEN 910
DJDJ 900 GOTO840
MDGC 910 PRINTCHR$(147)
JGBJ 920 PRINT: PRINT"THE FILE IN MEMORY WILL BE ERASED"
BIGG 930 PRINT: PRINT"IS IT OK TO EXIT FROM THE PROGRAM."
MAFA 940 PRINT"PRESS Y OR N "
EKLB 950 GETA$
OFGE 960 IFA$="Y"THEN990
EPFJ 970 IFA$="N"THEN750
HCAA 980 GOTO950
OEMI 990 END
KCDP 1000 REM******* CREATE NEW FILE ********
FPIB 1010 PRINTCHR$(147)
CADO 1020 PRINT"THE PRESENT HEADER IS:-"
CMHD 1030 PRINT:PRINTLB$
CCNG 1040 PRINT"****************************************"
KEDH 1050 PRINT:PRINT"ENTER NEW HEADER (MAX 40 CHRS.) OR PRESS"
DJAP 1060 PRINT"RETURN ONLY TO RETAIN PRESENT HEADER."
FCCM 1070 PRINT:INPUTLB$
ILBH 1080 LC$="[SP39]."
NGPJ 1090 L4=LEN(LB$):L5=40-L4
PMEP 1100 LB$=LB$+RIGHT$(LC$,L5)
AOKD 1110 LB$=LEFT$(LB$,40)
JIHN 1120 FORI=1TO500:NEXTI
ODCE 1130 PRINTCHR$(147)
```

continued on page 94

continued from page 93

```
APCN 1140 PRINT"ENTER THE AMOUNT TO BE BROUGHT FORWARD."
EGJH 1150 BF=0:PRINT:INPUTBF
JAJI 1160 BL(0)=BF
EEPK 1170 GOSUB2430
GIGK 1180 RETURN
EAFL 1190 REM******* LOAD FILE ***************
DPLH 1200 PRINTCHR$(147)
DOHN 1210 IFDV=8THEN1240
LMHB 1220 OPEN8,1,0
DELJ 1230 GOTO1370
IDCP 1240 PRINT"ENTER NAME OF DATA FILE."
NJDK 1250 FORI=1TO500 :NEXTI
HDMD 1260 PRINT:PRINT:INPUTF$
CJKM 1270 PRINTCHR$(147)
BJOP 1280 PRINT"[SP6]LOADING "+F$
IJGA 1290 OPEN15,8,15
HNFN 1300 OPEN 8,8,8,"0:"+F$+",S,R"
EGEI 1310 INPUT#15,R,X$,Y,Z
LGBC 1320 IF R=0 THEN 1370
DJAE 1330 CLOSE8 :CLOSE15:PRINTCHR$(147)
DGBE 1340 PRINT:PRINT:PRINT"[SP6]"+CHR$(18)+X$+CHR$(146)
AMJI 1350 FOR I=1TO1500:NEXTI
KKIK 1360 GOTO1200
ONMM 1370 INPUT#8,LB$
AOGK 1380 FOR I=0TO52
OMKB 1390 INPUT#8,AA$(I)
BBNE 1400 INPUT#8,AB$(I)
FNJE 1410 INPUT#8,AC$(I)
KCEI 1420 INPUT#8,DB(I)
MKCL 1430 INPUT#8,CR(I)
GNJG 1440 INPUT#8,BL(I)
DKJI 1450 NEXT I
LNHF 1460 CLOSE8:CLOSE15:RETURN
FMKA 1470 REM******* DISPLAY RECORDS ********
BBAP 1480 Y=0:EN=0
BEOE 1490 PRINTCHR$(147);
HGLI 1500 IF BL(0)=1 THEN1610
AOAI 1510 PRINTLB$;
CPIG 1520 PRINT"FILE:-"+F$+" B/F £";BL(0)
AMDP 1530 PRINTPL$;
FDEF 1540 BE=EN+1:EN=BE+6
OMGH 1550 IF BE=>DB(0)THEN1610
FPJJ 1560 IF EN>DB(0)-1 THEN EN=DB(0)-1:Y=1
IPAC 1570 GOSUB 3460
FKMD 1580 INPUT"PRESS RETURN FOR MORE";OK
BJOE 1590 IFY=1THENGOTO1610
GNHI 1600 GOTO 1490
NPOG 1610 PRINTCHR$(147):PRINT:PRINT:PRINT"END OF FILE.!!!!"
LOLM 1620 FORI=1TO1000:NEXTI:GOTO750
LIMA 1630 REM******* PRINT FILE ***********
HJJM 1640 PRINTCHR$(147);:OPEN4,4
AMNH 1650 IF DB(0)>1 THEN 1680
IJNH 1660 PRINT:PRINT"[SP4]NO FILE FOUND.!!!!"
EBAK 1670 FORI=1TO1000:NEXTI:GOTO1740
GJDD 1680 PRINT#4,LB$
EMDH 1690 PRINT#4,"FILE NAME :- "+F$+"[SP3]B/F[SP2]£";BL(0)
BMFN 1700 PRINT#4:PRINT#4,LI$
```

```
DEJM 1710 PRINT#4,LU$
BLNM 1720 PRINT#4,LI$
MDBI 1730 J=1:BE=1:EN=DB(0)-1 :GOSUB3460
CJPI 1740 PRINT#4,LI$:CLOSE4:GOTO750
MMKB 1750 REM******* ALTER RECORD *********
ADMJ 1760 PRINTCHR$(147):PRINT"FILE:- "+F$+"[SP4]NEXT RECORD IS";DB(0)
LKCB 1770 PRINT:PRINT" PRESS RETURN ONLY TO ACCESS ";DB(0)
NJHL 1780 PRINT:PRINT" OR ENTER NUMBER OF ANY OTHER RECORD.!"
FMIB 1790 FORI=1TO500:NEXTI
LPMB 1800 PRINT:NR=DB(0):INPUTNR
EBGO 1810 IF NR<DB(0)+1ANDNR>0THEN 1840
FINL 1820 PRINT:PRINT"RECORD NOT FOUND.!!!!"
HDIL 1830 FORI=1TO1000:NEXTI:GOTO750
KFEN 1840 A1$=AA$(NR):A2$=AB$(NR):A3$=AC$(NR)
GHCB 1850 AA$(52)=A1$:AB$(52)=A2$:AC$(52)=A3$
KEOH 1860 B1$=RIGHT$(A1$,11):B1$=LEFT$(B1$,10)
LBMA 1870 B2$=LEFT$(A2$,10)
IJAB 1880 B3$=LEFT$(A3$,16)
KEDM 1890 B1=DB(NR):B2=CR(NR):B3=BL(NR)
```

continued...

★ Program Submission Procedure ★

DO NOT submit any program or routine that you do not either own or have authority to do so.

ALWAYS include your name, address and date on all material sent.

NEVER use staples, use paperclips if necessary.

If you are using TAPE save the program at least TWICE on each side. DO NOT USE TURBO SAVE SYSTEMS.

If you are using DISK save the program at least twice and call the second program BACKUP.

IDENTIFY your tape/disk with: your name and address, the program name and WHAT COMPUTER it is for.

PLEASE do not submit hand-written work, unless it is unavoidable. *** Note *** you can always write your instructions in the form of a computer program, eg 1 PRINT 'your text' etc.

INCLUDE a short statement of what your program is supposed to do.

IF YOU USE A WORDPROCESSOR supply a standard ASCII file of the article, this allows us to load it into our standard wordprocessors.

INCLUDE the following STANDARD header on all programs. Even if your program is in multiple parts, include this information on each part
(this will be stripped off prior to publication).

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ADDRESS
ADDRESS
POSTCODE
COUNTRY
TELEPHONE No. (if poss).
COMPUTER
DOS/ROM TYPE
PROGRAM NAME

ALWAYS ensure that disks are well packed, Use a commercial disk mailer or at least packed between two pieces of thick cardboard or rigid plastic.

MARK the package MAGNETIC MEDIA DO NOT BEND OR EXPOSE TO MAGNETIC FIELDS in BOLD letters on BOTH sides.

Please allow at least 8 weeks for acknowledgement as all programs have to be thoroughly tested and put into a suitable format.

Enclose a self-addressed stamped envelope or package if you would like your program to be returned.

Overseas submissions can use IRC's International Reply Coupons.

* Programming Tips *

If you can, use CHR$(x) type commands instead of graphic characters.

Renumber your program in a standard form, most readers use auto number utilities to ease typing in.

Try to keep instructions within the program fairly short. You can expand on them within the text if necessary

TEST YOUR PROGRAMS..better still get a friend to test them for you.

IF YOUR PROGRAM CONTAINS MACHINE CODE:
Please use DECIMAL data statements, NOT HEX for the BASIC loader. Keep the same number of data statements on each line (MAX 14) and use the three digit format if possible. eg 000,010,243,001 etc.

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10 year old C64 user with disk wants similar aged penpal. Send letter and disks to Neil Arman, Ildenmark Drive, Sedbury, Chepstow, Gwent NP6 7BD. Reply Guaranteed.

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British C64 owner wishes to make contact with others all over the world. Contact Keith, A.D.A.M.S. PO Box 133, Dhahran Airport, 31932 Saudi Arabia.

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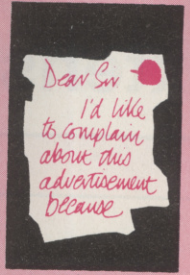
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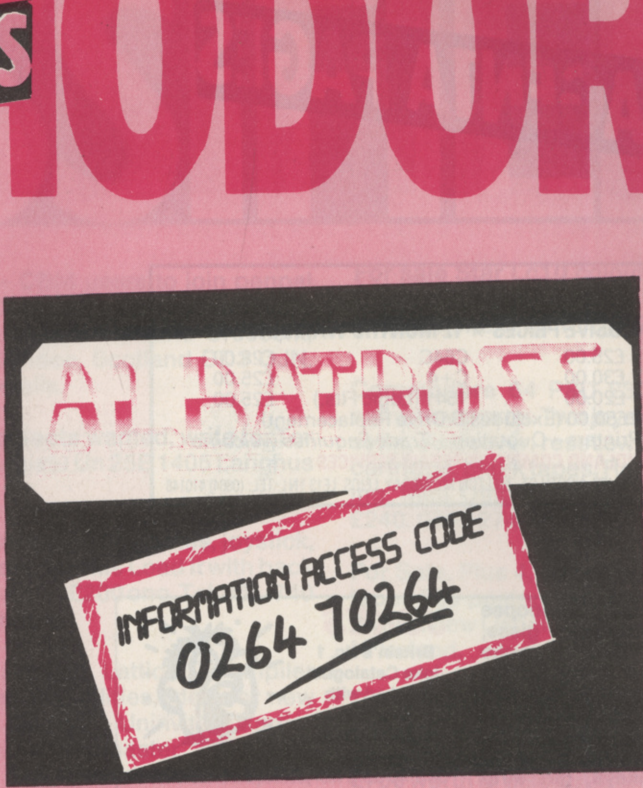

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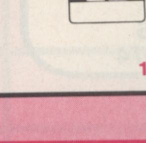

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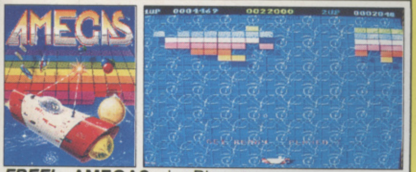
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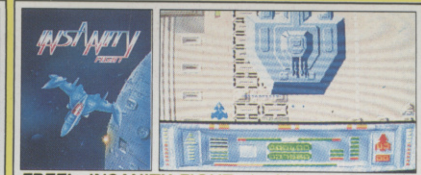
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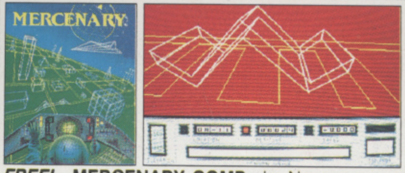
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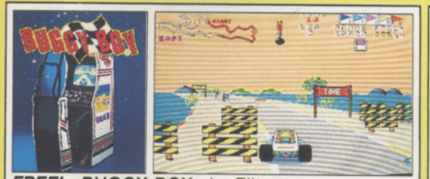
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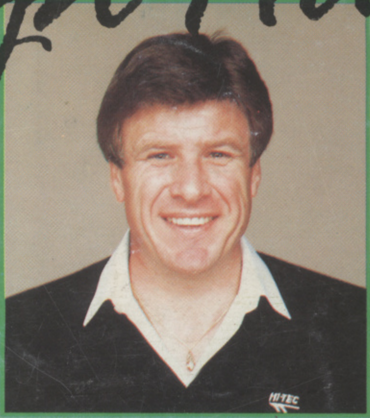

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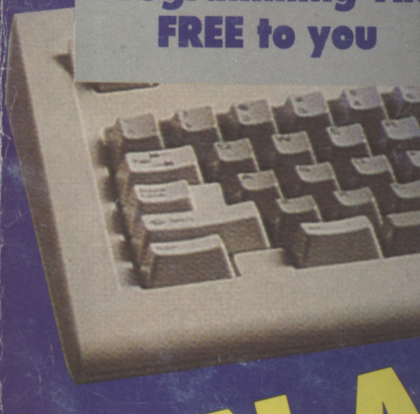

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